



City and Port of Cardiff

ANNUAL REPORT

FOR 1932

OF THE

Medical Officer of Health and
School Medical Officer

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PREFACE.

THE LOCAL GOVERNMENT ACT AND THE MEDICAL SERVICES.

As the medical work of public assistance, when taken along with the construction, staffing and equipment of the new hospital at Llandough, has occupied the major part of my own personal attention during the year, it may appropriately form the principal subject of this prefatory note. It will be remembered that the passage of the Local Government Act, 1929, enabled local authorities to make "declarations" of a kind which would have had the effect of taking entirely out of the Poor Law such functions as the medical treatment of the sick. The making of such declarations could only be practicable where the authorities had available ample accommodation of a kind which would never be required for purposes peculiar to the Poor Law. In such circumstances the making of a declaration would, no doubt, have been a valuable gesture, but it would have been of little practical importance since its advantages are otherwise attainable. Moreover, its disadvantages (such as the definite abrogation of the right to treat any sick person under the Poor Law) are material.

In any case, the institutions bequeathed to Cardiff City Council by the Guardians were not of a type which permitted of such a complete departure from the Poor Law in medical administration. Llandough Hospital was the only purely medical institution in the possession of the Guardians, and, although it consisted merely of foundations on 1st April, 1930, it was immediately appropriated for administration under the Public Health Acts, in terms of the Public Health Acts Amendment Act, 1907, Sec. 95. For the rest, co-ordination of the medical services had to be obtained in the person of the Medical Officer of Health and through the co-operation of the Committees respectively responsible. The status of the Medical Officer of Health in relation to the Public Assistance Committee was assured by Art. 165 of the Public Assistance Order, 1930 (a provision not contained in the Draft Order but inserted largely as the result of joint representation by the British Medical Association and the Society of Medical Officers of Health), and in Cardiff it was made doubly effective by his formal appointment as Medical Officer for Public Assistance. The delegation, or assignment, of functions to other Committees by the Public Assistance Committee, as permitted by the Poor Law Act, 1930, Sec. 4 (4), and the Minister's power to permit local variation of the application of Art. 25 of the Public Assistance Order (in relation to the admission of patients) present further opportunities for co-ordination which are being examined at the present time, and about which the Council have come to certain decisions during 1933.

Although the two large institutions for the indoor poor, therefore, have had to remain under Poor Law administration, opportunities have arisen for changes in conformity with the spirit of the Local Government Act. When a vacancy occurred in the position of Master at Ely Institution, which has come to accommodate mainly persons of unsound mind of the less acute and violent type and mental defectives, the occasion was taken to bring the administration into line with the almost entirely medical character of the institution by appointing Dr. Payne in the dual capacity of Master and Medical Officer. The vacancy for a District Medical Officer thus arising was filled by the part-time appointment of Dr. Dower, this appointment being made from year to year so as to keep open the possibility of any further change of policy in relation to the outdoor medical care of the poor which may appear desirable.

It was also decided, in principle, that such inmates as are described as "infirm" should not ordinarily be sent to Ely, and it is proposed as occasion arises to remove most of such inmates who are at present in residence. The first opportunity will occur when Llandough Hospital is opened by transferring them to the accommodation thus set free at the City Lodge, but certain elderly women who have been at Ely for many years and some men whose labour is valuable, both at the institution and in connection with arable land adjacent to it, will be retained.

The most complicated problems have arisen in connection with the present administration of the City Lodge and its future relations with Llandough Hospital. Toward the end of the year the growing problem of accommodation at the former became acute, and in the early part of 1933 the congestion became so serious that those who ever doubted the wisdom of the Guardians' scheme for a new hospital must have had their doubts dispelled. Gradually, in recent years, wards in the "House" or "Blocks," originally dormitories for the able-bodied and infirm, have come to be appropriated for sick persons requiring constant medical and nursing care. Improvements have been made in some of them, notably in relation to sanitary accommodation and ward kitchens, which have rendered them less unsuitable for the purpose. On the other hand, the inmates who are not bed-ridden have had to be housed in quarters some of which are totally unsuitable for the purpose and most of them liable from time to time to be grossly overcrowded. A survey of the institution made on 17th December, 1932, was the subject of a report prepared on 6th January, 1933, in which it was shown that there were 72 male inmates over and above the properly available accommodation. This excess was far exceeded in the first quarter of 1933. It was pointed out that the decision to remove all the acute sick and all the children except healthy infants from the City Lodge when Llandough Hospital should become available would relieve the numbers by 250, and so render available places not only for some of the infirm at Ely Institution but also permit of reclassification of the inmates and the evacuation of certain unsuitable quarters. These proposals have been approved provisionally.

It is clear, however, that the City Lodge must remain largely an institution for the sick. Even that part of it known as the Hospital will be insufficient for all those inmates who require constant medical and nursing care, so that the straightforward means of co-ordination with Llandough Hospital (the appropriation of the Hospital wards of the City Lodge for public health purposes) is no solution of the problem. Nevertheless, it has been clear that these two institutions for the sick must not be allowed to develop along separate and independent paths. In the interests of the sick the quality of the nursing at the City Lodge cannot be allowed to deteriorate, as it would if it ceased entirely to be a training school for nurses, and by itself an institution without places for the acute sick could not be a training school. Moreover, there must be constant interchange of patients if Llandough Hospital and the City Lodge are to be used with economy and the greatest advantage to the sick. The Council have accordingly decided to apply to the General Nursing Council for the recognition of Llandough Hospital and part of the City Lodge as one training school, to make the Medical Superintendent of Llandough Hospital also Medical Officer of the City Lodge, to give the medical staffs of the two institutions responsibilities in both, to place the Matron of Llandough Hospital in charge of the nursing of all the sick in the City Lodge (whether by trained nurses, probationers or attendants) and to appoint the Master of the City Lodge as Steward of Llandough Hospital. Arrangements are also being made for the admission to the City Lodge of certain maternity and venereal cases as part of the maternity and child welfare and venereal diseases schemes rather than through the Poor Law channel.

All these changes will take place when Llandough Hospital opens in the latter part of 1933. It remains to maintain and, if possible, strengthen that bond which has come to exist between the Welsh National School of Medicine and the hospitals of the Corporation, as well as the spirit of co-operation between the latter and the voluntary hospitals, especially Cardiff Royal Infirmary, which has come into being in recent years.

In relation to the medical service to the outdoor poor, it has not been easy to measure accurately the growth of the numbers of patients making use of the services of the District Medical Officers, but it is known to be very great. After some difficulty, figures will now be available for this purpose. They are set out on page 27 for the first time. Changes will take place in the administration of medical benefit at the end of 1933 which will make this problem more acute. On the one hand, District Medical Officers are being called upon to treat patients in far larger numbers than was ever contemplated when they were appointed; on the other, a class of persons is being driven into their care who had thought that the Insurance Act, 1911, had secured their medical treatment throughout the years when they would normally be working. This problem raises acutely the

question as to advantages of the "open-choice" system of outdoor medical relief, which has been adopted in the City of Newcastle and which has the strong support of the medical profession.

GENERAL HEALTH SERVICE.

Census 1931.—The Glamorgan volume of the Registrar General's Report on the Census of 1931 was published in December, 1932, and a report on the figures for Cardiff is included (Appendix V, page 95). The information which it contains cannot readily be obtained elsewhere and it should prove of increasing value during the ensuing intercensal period.

Vital Statistics.—The birth-rate, 15·7 per 1,000, was by far the lowest on record. The crude death-rate, 12·5 per 1,000, was slightly above the average for the past 10 years, but the infant mortality, 76 per 1,000 live births, was slightly below the average. The excess of births over deaths (710) was relatively small, which, taken along with continued migration, accounts for the fact that the Registrar General's estimate of the population at the middle of 1932 (222,600) is approximately one thousand less than the census population of 1931. It may be assumed that the crude death-rate will rise for some years because of the steady ageing of the population revealed in successive census reports.

Puerperal Mortality.—The puerperal mortality, 5·42 per 1,000 live births, was high. This cause of death continues to resist all the efforts which have been made to bring it under control.

Cancer.—Cancer caused 327 deaths, the rate of 1·47 per 1,000 being the highest on record. The increase in abdominal cancer as a cause of death is not unexpected, but the rise in mortality from cancers of the breast and uterus, which can be treated with success if discovered at an early stage, is disappointing.

Road Accidents.—There is a slow but steady rise in mortality from road accidents, pedestrians, motor cyclists and pedal cyclists being the principal victims.

Deaths in Institutions.—A notable feature of modern social conditions is the increasing proportion of deaths which occur in institutions. In 1932 it reached 38·6 per cent. of all deaths of persons belonging to Cardiff.

Epidemic Disease.—Scarlet fever increased in volume, but diphtheria declined; it is too soon to offer an opinion as to whether this rather unusual divergence is associated with the amount of immunisation against diphtheria in recent years.

Hospitals.—The erection of Llandough Hospital proceeded according to plan. Extensions of the Isolation Hospital were further considered and, after modification of the plans, approved for immediate erection.

Reports by Dr. McSweeney on the work of the Isolation and Lord Pontypridd Hospitals will be found on pages 18 and 23.

Maternity and Child Welfare.—The work of the health visitors in regard to the home visitation of children between 1 and 5 years of age has, as usual, not been satisfactorily overtaken, but extensions of the scheme approved in 1933 will help to overcome this defect.

A note by Dr. Gibbs (page 52) on the treatment of expectant mothers by artificial sunlight reveals that no definite advantage to the child subsequently born could be proved, but that this treatment continues to be of value for the excessive vomiting of pregnancy.

Housing.—The closure of unfit houses has not made very satisfactory progress. The chief obstacle has been the difficulty in obtaining a satisfactory assurance that houses would be definitely and promptly available for the displaced tenants. The whole position is at present under review by the Housing Committee, who have under consideration the adoption of the policy of clearing small areas, which has not hitherto, in recent years, been thought practicable. The influence of the Corporation housing schemes on the living conditions of the people is discussed in the Census report (Appendix V, page 95).

Milk-Cleanliness.—The results of the bacteriological examination of milk indicate a certain amount of deterioration in its quality. This appears to be associated with an increase in the amount of milk sold by rounds directly from premises outside the city. Some of the findings in relation to graded milks indicate that the machinery for licensing and control of producers requires tightening.

Milk-Adulteration.—The work of Mr. Dixon on the cryoscopic test for adulteration of milk, contained in his report as Public Analyst (page 64), deserves careful attention.

PORT SANITARY SERVICE.

The receipt of advance wireless messages was discussed with shipping agents, but found to present difficulties at this port which are hard to overcome.

During the year the number of vessels requiring certificates in connection with rat infestation diminished. The increasing proportion of exemption certificates (see page 110) indicates that the international efforts to reduce the number of rats on vessels are proving successful, with a corresponding reduction in the risk of plague.

SCHOOL MEDICAL SERVICE.

The proportion of children found defective is not being reduced. In spite of the substantial organisation for the treatment of school children found diseased or defective, a higher proportion are found with defects in their final years than at entrance. The present system, however, concentrates attention upon certain types of defect which cannot be regarded as an accurate measure of physical fitness. That there is need for a satisfactory measure of physical fitness is apparent, but attempts to find it, both in Cardiff and in other places, have not so far proved successful. In the meantime more attention to physical welfare in the schools is needed. An inquiry into the continuance of dental caries, in spite of the considerable efforts which have been made both as to education and treatment, would probably produce interesting results.

The extended provision of milk for school children is a development which will be followed with interest.

MENTAL DEFICIENCY.

The need for accommodation is still clamant, especially for young cases of low grade. The Glamorgan scheme, upon which we are partly dependent, develops slowly, and it is becoming clear that there are very definite limits to the uses to which Ely Institution can be put.

RALPH M. F. PICKEN,

*Medical Officer of Health and
School Medical Officer.*

PUBLIC HEALTH DEPARTMENT,
CITY HALL, CARDIFF,
September, 1933.

CITY OF CARDIFF.

PUBLIC HEALTH DEPARTMENT.

EXPENDITURE 1931-32.

Service (1)	Total Expenditure (2)	Income (Excluding Government Grants) (3)	Net Cost of Service (4)
	£	£	£
(1) HEALTH, ETC. SERVICES—			
Sanitary Expenses	14,294	904	13,390
Food and Drugs (Adulteration) Act	1,149	71	1,078
Diseases of Animals Acts	400	...	400
Midwives Acts	24	...	24
Shops Acts	535	3	532
Meteorological Station	84	...	84
	16,486	978	15,508
(2) PREVENTION AND TREATMENT OF TUBERCULOSIS	29,123	469	28,654
(3) MATERNITY AND CHILD WELFARE SERVICE	18,468	3,062	15,406
(4) VENEREAL DISEASES	5,366	...	5,366
(5) SCHOOL MEDICAL SERVICE	14,178	1,400	12,778
(6) MENTAL DEFICIENCY SERVICE	10,994	502	10,492
(7) PORT SANITARY SERVICE	5,513	1,601	3,912
(8) HOSPITALS:—			
City Isolation Hospital (Sanatorium)	19,173	1,863	17,310
Caerau Smallpox Hospital	2,320	298	2,022
Lord Pontypridd Hospital (Dulwich House)*	1,724	1,724	...*
Llandough Hospital (in course of con- struction)	11,099†	...	11,099†
Totals	134,444	11,897	122,547

*Maintained by proceeds of the Lord Pontypridd bequest.

†Mainly loan charges.

NOTE REGARDING EXPENDITURE, 1931-32.

The income from Government Grants in respect of the School Medical Service and Port Sanitary Service amounted to £6,389 and £1,551 respectively.

Of the sums included in column (4), the following are items of expenditure due to the transfer of Poor Law functions under the Local Government Act, 1929:—

(a) <i>Sanitary Expenses</i> —					£
Vaccination Expenses	...	...	...	...	837
(b) <i>Maternity and Child Welfare</i> —					
Infant Life Protection	...	...	...	...	200
(c) <i>Llandough Hospital</i> —					
(Scheme taken over from late Board of Guardians)	...				11,099
					£12,136

In addition, sums at least equivalent to the following were included in the General Exchequer Contribution to the Council for the year:—

					£
(a) Amounts paid to Voluntary Organisations direct by the Government and deducted from the grant to the Council:—					
(i) <i>Prevention and Treatment of Tuberculosis</i> —					
Proportion of Expenses of the Welsh National Memorial Association	...	...	...	...	12,292*
(ii) <i>Venereal Diseases</i> —					
Grant to Voluntary Institution under Sec. 101, Local Government Act, 1929	...	...	...	...	30
(iii) <i>Mental Deficiency</i> —					
Grant to Voluntary Institution under Sec. 102 (2), Local Government Act, 1929	...	...	...	...	11
					£12,333
(b) Amount formerly paid direct by the Government but now paid by the Council:—					
<i>Maternity and Child Welfare</i> —					
Grants to Voluntary Institutions under Sec. 101, Local Government Act, 1929	...	...	...	...	£1,817
(c) Amounts included in the block grant to the Council (being the Government's contribution towards these services in 1928-29):—					
(i) <i>Maternity and Child Welfare</i>	...	...	...	...	4,690
(ii) <i>Venereal Diseases</i>	...	...	...	...	4,568
(iii) <i>Mental Deficiency</i>	...	...	...	...	3,572
					£12,830

In arriving, therefore, at the cost of the Health Services to the rates, receipts amounting to approximately £34,920 should be taken into consideration, representing the value of direct Government grants and the estimated minimum amount of the block grant attributable to the services mentioned in the table.

*This figure is estimated as being the difference between the actual amount paid to the Welsh National Memorial Association and the amount which would have been due under the old agreement. The contribution by Cardiff is influenced not only by the Local Government Act, 1929, but by changes in rateable value and in the method of apportioning the cost of the Welsh National Memorial Association among the contributing authorities.

GENERAL HEALTH SERVICE.

I.—GENERAL STATISTICS.

Area (acres):—

Including inland water, foreshore and Flatholm	...	...	13,628
Excluding foreshore and Flatholm	...	...	11,984
Excluding inland water, foreshore and Flatholm	...	...	11,580
Population (Census, 1931)	...	...	223,589
Population (Registrar-General's estimate)	...	...	222,600
Number of persons per acre (exclusive of foreshore and Flatholm)	...	...	18.6
Number of inhabited houses (estimated)	...	...	44,000
Number of inhabited houses per acre (exclusive of foreshore and Flatholm)	...	...	3.67
Average number of persons per occupied house	...	...	4.9
Rateable value (October, 1932)	...	...	£1,807,868
Estimated product of a penny rate (October, 1932)	...	...	£6,832

II.—VITAL STATISTICS.

BIRTHS.

The numbers of births and still-births registered during the year, arranged in wards and sub-divided according to sex and legitimacy, are shown in Table I, Appendix I. The live births registered according to the Registrar-General are summarised in the following brief statement:—

	Legitimate	Illegitimate	Totals
Males ...	1,733	66	1,799
Females ...	1,627	77	1,704
Totals	3,360	143	3,503
Rate per 1,000 population	15.1	0.6	15.7

The number of registered still-births belonging to Cardiff was 210, equivalent to a rate of 56 per total 1,000 births (live and still-births).

The birth-rates for former years and for other places are given for comparison:—

	Cardiff			England and Wales 1932	118 Great Towns 1932
	1932	1931	1922-1931		
Birth-rate per 1,000...	15·7	16·8	19·3	15·3	15·4

The birth-rate in each ward is given in Table V, Appendix I.

DEATHS.

The deaths in 1932, classified according to age and cause (Registrar-General's short list), are set out in Table III, Appendix I. The ward distribution of the deaths and death-rates is included in Table V, and the causes of infant deaths in Table IV, Appendix I.

The following is an abbreviated extract of the death statistics:—

	<i>Males.</i>	<i>Females.</i>	<i>Total.</i>	<i>Death-rate per 1,000.</i>
Deaths from all causes ...	1,497	1,296	2,793	12·5

Of the 2,793 deaths from all causes, 1,078, or 38·6 per cent., occurred in public institutions, as compared with 36·7 per cent. in 1931.

	<i>Deaths.</i>	<i>Rate per 1,000 Live Births.</i>	<i>Rate per 1,000 Total Births.</i>
Women in child-birth:—			
Puerperal sepsis ...	4	1·14	1·08
Other puerperal causes ...	15	4·28	4·03
Total	19	5·42	5·11

	<i>Deaths.</i>	<i>Rate per 1,000 Live Births.</i>
Infants under one year of age:—		
Legitimate ...	246	70
Illegitimate ...	21	147
Total	267	76

	<i>Deaths.</i>	<i>Rate per 1,000 Population.</i>
Measles ...	10	0·04
Whooping Cough ...	24	0·11

	<i>Deaths.</i>	<i>Rate per 1,000. Live Births.</i>
Diarrhoea (under 2 years) ...	30	8·6

Certain of these rates are tabulated for comparison with previous years and other places as follows:—

	Cardiff			England and Wales 1932	118 Great Towns 1932
	1932	1931	1922-1931		
Death-rate per 1,000	12.5	12.8	12.1	12.0	11.8
Infant Mortality (Deaths under 1 year per 1,000 Births)	76	77	78	65	69
Deaths of Women in Child-birth per 1,000 Live Births:—					
Puerperal sepsis	1.14	1.85	2.06	1.61	1.59
Other puerperal causes	4.28	1.59	2.77	2.63	2.29
Totals	5.42	3.44	4.83	4.24	3.88

CANCER.

The number of deaths from cancer or malignant disease recorded in 1932 was 327, giving a death-rate per thousand of the population of 1.47 (males 1.48, females 1.46) as compared with 283 deaths and a death-rate of 1.26 per thousand (males 1.32, females 1.21) in 1931, and with a death-rate of 1.19 (males 1.12, females 1.24) during the ten years 1922-31. The deaths during 1932 are analysed according to age, sex and localisation of the disease in the following table:—

Cancer— Malignant Disease	5-15 years		15-25 years		25-45 years		45-65 years		65-75 years		75 years and upwards		All Ages		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Both Sexes
Buccal Cavity and Pharynx...	1	...	6	2	11	1	1	...	19	3	21
Digestive Organs and Peritoneum	5	5	43	28	37	24	15	11	100	68	168
Respiratory Organs	3	1	10	2	1	...	2	...	16	3	19
Uterus	9	...	19	...	5	...	2	...	35	35
Other Female Genital Organs	1	...	2	...	6	...	3	...	1	...	13	13
Breast	4	...	16	...	8	...	5	...	33	33
Male Genito-urinary Organs	1	...	3	...	6	...	...	...	10	...	10
Skin	2	...	...	1	2	1	4	2	6
Other or Unspecified Organs	1	...	...	...	...	3	5	4	2	4	1	1	9	12	21
Totals	1	...	...	1	10	24	69	77	57	46	21	21	158	169	327

DEATHS FROM ROAD ACCIDENTS.

The number of deaths from violence (excluding suicide) and the number and proportion of these due to road accidents in each year since 1923 are shown in the following table:—

Year	Total Deaths from Violence (excluding Suicide)	Deaths from Road Accidents	
		Number	Percentage
1923	100	14	14.0
1924	97	21	21.6
1925	91	23	25.3
1926	107	17	15.9
1927	103	20	19.4
1928	103	26	25.2
1929	98	16	16.3
1930	98	29	29.6
1931	93	30	32.3
1932	110	31	28.2

The deaths from road accidents in 1932 have been analysed in such a way as to show the type of vehicle and the class of person involved. The results are presented in the following table:—

Vehicles	Fatal Accidents	Persons Killed					Totals
		Drivers	Motor Cyclists	Passen- gers	Cyclists	Pedes- trians	
Heavy motor vehicles ...	8	...	...	1	...	7	8
Light motor cars ...	7	2	...	...	...	5	7
Motor cycles ...	5	...	4	...	...	1	5
Horse-drawn lorry ...	1	1	...	...	...	...	1
Heavy motor vehicles and motor cycles ...	2	...	2	...	...	...	2
Heavy motor vehicles and pedal cycles ...	4	...	...	...	4	...	4
Light motor cars and motor cycles ...	2	...	2	...	...	...	2
Light motor cars and pedal cycles ...	2	...	...	...	2	...	2
Totals ...	31	3	8	1	6	13	31

III.—ACUTE COMMUNICABLE DISEASES.

NOTIFICATIONS, ADMISSIONS TO HOSPITAL, DEATHS AND FATALITY RATES.

Disease (1)	Cases Notified (2)	Cases admitted to Hospital (3)	Deaths (4)	Percentage Fatality of Cases Notified (5)
Smallpox	1	1	...	...
Scarlet Fever	726	614	3	0·41
Diphtheria	493	490	10	2·03
Enteric Fever	9	6	2	22·22
Pneumonia*	260	8	149	...
Puerperal Fever	32	11	4	12·50
Puerperal Pyrexia	52	3	...	...
Cerebro-Spinal Fever	12	9	6	50·00
Acute Poliomyelitis	4	1	...	...
Acute Polioencephalitis	1	...	...	...
Encephalitis Lethargica	1	...	2†	...
Dysentery	1	1	...	...
Ophthalmia Neonatorum... ..	34	...	1	2·94
Erysipelas	50	5	4	8·00
Malaria	4	...	1	25·00
Food Poisoning	3	...	...	...

SMALLPOX.

One case of smallpox was notified during the year. The patient—an unvaccinated woman, 31 years of age—who was infected with variola minor whilst on a visit outside Cardiff, was successfully vaccinated two days after her return and developed a modified variolous eruption 11 days later, when she was admitted to hospital.

Vaccinal State of the Population.—The following table gives the results of the work of the vaccination officers in connection with 3,823 children during the year:—

Successfully Vaccinated	Insusceptible	Postponed	Certificates of Exemption	Died Unvaccinated	Unaccounted for (including cases removed to other districts)
1,758	19	19	1,639	249	139

Comparison with previous years is made in the following table:—

Year	Percentage of Infants not returned as Vaccinated	Percentage of Certificates of Exemption
1922	47·7	37·2
1923	35·5	23·5
1924	44·2	30·5
1925	48·1	31·3
1926	54·2	34·0
1927	52·2	29·5
1928	47·8	33·2
1929	56·7	36·6
1930	50·1	36·9
1931	52·5	37·6
1932	54·0	42·9

*Only such cases of pneumonia as fall into the categories “acute primary” and “influenzal” are notifiable. Deaths from all forms of pneumonia are included in the fourth column.

†Unnotified cases.

ENTERIC FEVER.

Nine cases of enteric fever were notified, as compared with 8 in 1931, and two deaths were certified as being due to the disease.

SCARLET FEVER.

The high prevalence of scarlet fever recorded each year since 1929 continued throughout 1932, 726 cases being notified as against 632 in 1931. The number of deaths due to scarlet fever was three only, being equivalent to a death-rate of 0.01 per 1,000 of the population.

DIPHTHERIA.

The number of cases of diphtheria notified during the year was 493, being considerably less than the number notified during each of the previous three years, viz., 735 in 1929, 731 in 1930 and 589 in 1931. The number of deaths due to diphtheria was 10, being equivalent to a death-rate per 1,000 of 0.04, as compared with 24 deaths and a death-rate of 0.11 in 1931.

Active Immunisation.—Immunisation against diphtheria was continued during 1932 among children attending the child welfare centres and to a small extent in special circumstances amongst older children. Seventy-four children under 5 years and nine over 5 years were immunised and four children under 5 years failed to attend for completion of the injections. No children were Schick tested.

OPHTHALMIA NEONATORUM.

Thirty-four cases of ophthalmia neonatorum were notified during the year, 5 of which were institutional cases. Of the remaining 29 cases, 11 were treated by private medical practitioners, 2 were admitted to the City Lodge Hospital and 16 were treated by nurses of the Queen's Institute of District Nursing. A complete cure was effected in 30 cases. One infant died from the disease and 3 died from other causes.

During the year, 25 specimens of exudate from the eyes of infants notified or suspected to be suffering from ophthalmia neonatorum, including 7 of the notified cases, were submitted for microscopical examination for the presence of gonococci; 2 of the specimens were found to be positive and 23 negative.

NON-NOTIFIABLE ACUTE COMMUNICABLE DISEASES.

The following statement shows the number of cases of non-notifiable communicable diseases which came to the knowledge of the Department during 1932:—

Chickenpox	...	...	...	548
Measles	...	...	...	440
Rubella	...	...	...	4
Whooping Cough	...	...	...	437
Mumps	...	...	...	587

Measles.—An epidemic of measles commenced in July, 1932, and the disease continued to be prevalent during the remaining months of the year. The number of deaths which occurred was 10, the death-rate being 0.04 per 1,000, as compared with 50 deaths and a death-rate of 0.22 in 1931.

Whooping Cough.—Whooping cough was prevalent throughout the year, especially during the first six months. The number of deaths was 24, corresponding to a rate of 0.11 per 1,000, the number of deaths and the death-rate per 1,000 in the previous year being 6 and 0.03 respectively.

Diarrhoea.—The number of deaths registered as being due to diarrhoea, etc., was 47, 30 of them occurring amongst children under 2 years of age. These 30 deaths corresponded to a death-rate of 8.6 per 1,000 live births, compared with 29 deaths and a rate of 7.7 in 1931.

Influenza.—Fifty-seven deaths were certified as being caused by influenza, and the total number of deaths caused by influenza and respiratory diseases was 344. The percentage of the total deaths from all causes due to these diseases was 12·3, as against 15·3 per cent. in 1931.

Home Nursing of Pneumonia.—The following is a summary of the work done for the Department by nurses of the Queen's Institute of District Nursing during 1932 in connection with the home nursing of cases of pneumonia:—

Cases in hand at beginning of year	...	3
Cases referred for nursing during the year	...	75
Visits during the year	...	1,522
Cases in hand at end of year	...	4

IV.—CARDIFF ISOLATION HOSPITAL.

The number of patients admitted to hospital, the average daily number of patients under treatment, the number of patient-days and the average duration of residence are shown in the following table:—

Disease according to diagnosis after admission	Patients admitted	Average daily number of patients	Patient-days	Average duration of residence in days
Scarlet Fever	610	68	21,465	35
Diphtheria	429	77	26,942	63
Other Diseases	255	12	9,603	38
All Diseases	1,294	157	58,010	45

The annual report of the Medical Superintendent is given below:—

Report for 1932 of Dr. Chris. J. McSweeney, Resident Medical Superintendent of the Cardiff Isolation Hospital.

During the year there were admitted to the wards 1,294 patients. All the pavilions, including the old smallpox block, were in full use during the whole of the year. Caerau Hospital was opened on 16th January, 1932, for the reception of one case of variola minor, and was closed again on 3rd February, 1932. It was re-opened on 29th October, 1932, for the reception of cases of scarlet fever consequent on the setting aside of one of the main pavilions at the Isolation Hospital for the admission of cases of measles in children under 5 years of age; it was still in full use at the end of the year.

The health of the nursing and domestic staff was generally satisfactory in spite of the overcrowded conditions under which the staff continue to be housed. Four nurses contracted diphtheria and three scarlet fever. As in previous years, no nurses showing a negative reaction to the Schick or Dick test has developed diphtheria or scarlet fever respectively. Fourteen nurses developed other conditions—mainly mild attacks of tonsilitis—and one of them had to be admitted to Glan Ely Hospital with tuberculous peritonitis, from which, however, she has made a satisfactory recovery. Two maids developed diphtheria, and eight others suffered from various mild illnesses. Thirty-two members of the staff were Schick tested and 12 were immunised against diphtheria, while 25 were Dick tested and 2 were immunised against scarlet fever.

On 31st March, 1932, Dr. John McGarrity ceased duty and left to take up his new appointment as Medical Superintendent of the City Isolation Hospital, Birmingham. Dr. Jean Smellie, was promoted to the post of Resident Medical Officer on 1st April, 1932, and on the same day I became part-time Resident Medical Superintendent of the institution.

The usual lectures and tutorials were given during the year. Four nurses passed the Preliminary State Examination and one failed, while six passed the Final Examination and one failed.

Scarlet Fever.—Six hundred and twenty-nine patients were admitted to the wards, of whom 610 were true cases of scarlet fever. The remaining 19 patients suffered from a variety of adventitious rashes, or were merely cases of tonsilitis, and made satisfactory recoveries. Twenty-two of the true cases of scarlet fever suffered concurrently from other diseases—16 from diphtheria, 4 from mumps, 1 from measles, and 1 from whooping cough—and 2 developed diphtheria as a complication. Of the 586 cases who suffered from scarlet fever only, 533 were finally classified as simple, 45 as septic or sub-septic and 8 as toxic or sub-toxic. Two hundred and eighteen cases received doses (10 c.c. or more) of scarlatinal antitoxin.

The principal complications met with were as follows:—

<i>Complication.</i>					<i>Cases.</i>	<i>Percentage.</i>	
Arthritis	...	...	...	...	19	...	3·1
Adenitis	...	...	...	...	85	...	13·9
Otorrhoea	...	...	...	...	42	...	6·9
Rhinitis (septic and diphtheritic)	...	...	...	...	51	...	8·3
Nephritis	...	...	...	...	5	...	0·8
Parotitis	...	...	...	...	1	...	0·1
Conjunctivitis	...	...	...	...	4	...	0·6
Vaginitis	...	...	...	...	1	...	0·1
Tonsilitis	...	...	...	...	2	...	0·3
Quinsy	...	...	...	...	1	...	0·1
Diphtheria	...	...	...	...	2	...	0·3

Three of the scarlet fever patients died, but in two of them other adverse circumstances contributed materially to the fatal termination. One was a malnourished child, 4 years old, admitted with concurrent enteritis and sub-septic scarlet fever, to which she succumbed five days after admission. Another was a child aged 8 years, who was seen before admission at home, where she was lying unconscious in the fourth day of a very toxic scarlet fever. She rallied after treatment with large doses of scarlatinal antitoxin, but on the third day after admission developed a quickly spreading streptococcal broncho-pneumonia which ended fatally in twelve hours. The remaining fatal case was a man of 24 years, admitted from a general hospital with scarlet fever following upon gastro-enterostomy. He had an exceedingly dusky rash and suffered from persistent vomiting following his admission, dying 36 hours later from septicaemia. Classifying all three deaths to scarlet fever, the hospital mortality was 0·49 per cent.

Diphtheria.—Five hundred and thirty cases were admitted to the wards, of whom 429 were true cases of diphtheria, 38 were diphtheria carriers (one of whom had scarlet fever as well), while the remaining 63 suffered from a variety of non-diphtheritic conditions. Of the latter group, 44 suffered merely from follicular tonsilitis, 3 from quinsy, 1 from Ludwig's angina, 2 had other ulcerations of the throat, 2 were suffering from laryngitis, 2 from broncho-pneumonia, 1 from lobar pneumonia, 1 from bronchitis, 1 had merely an erythematous rash, and 1 was a case of acute appendicitis who was transferred to the City Lodge Hospital for immediate operation. Five cases notified as diphtheria were in reality suffering from scarlet fever. No deaths occurred in this group of 101 patients. There were 10 deaths among the 429 diphtheria cases.

Table showing Type of Diphtheria and Mortality.

Type	Number	Died	Mortality per cent.
Faucial only	359	3	0.8
Faucial and nasal	40	6	15.0
Faucial and laryngeal	6	1	16.6
Laryngeal only	2	...	...
Nasal only	21	...	...
Nasal and Aural	1	...	...
Totals	429	10	2.3

The above table shows, amongst other things, that the diphtheria mortality rate for the year was 2.3 per cent., as compared with 4.05 per cent. in 1931, 4.35 in 1930, 3.58 in 1929, 3.38 in 1928, 4.82 in 1927, 4.98 in 1926, and 5.36 in 1925.

Two of the 10 deaths classed to diphtheria were really due to other concurrent conditions—in one case to sarcoma of the leg and the other to septicaemia following upon a gangrenous condition of the lung in an old standing case of empyema.

Eight cases were admitted suffering from croup. Of these, 2 were cases of pure laryngeal diphtheria and 6 had combined faucial and laryngeal lesions. One of the 8 died—a child with extensive patching on the throat in conjunction with a slight degree of laryngeal obstruction, who collapsed suddenly and died from an early circulatory failure. Three cases required operative treatment; of these, 2 were intubated and both recovered. Tracheotomy was performed on the other and she recovered. Five cases received steam treatment only, and of these, 4 recovered, the exception being the child previously mentioned, who developed a sudden early heart failure. The hospital mortality among the cases of laryngeal diphtheria was therefore 12.5 per cent.

Two cases of simple laryngitis admitted as cases of laryngeal diphtheria also received steam and recovered. One other case, notified as laryngeal diphtheria, proved to be a late stage of broncho-pneumonia and died. This child was intubated without relief.

Types of post-diphtheritic paralysis:—

Type.	Number.
Palatal paresis	20
Ciliary paresis	1
Paralysis of neck muscles	5
Paralysis of leg muscles	2
Pharyngeal paralysis	2
Total	30

Twenty-two patients in all suffered from paralysis. The paralysis rate was therefore 5.1 per cent., as compared with 6.8 per cent. in 1931, 6.2 in 1930, 9.3 in 1929, 8.8 in 1928, 6.9 in 1927, 6.3 in 1926, and 8.3 in 1925.

Circulatory failure occurred in 79 patients. Forty-nine of these showed only slight failure of the circulation as evidenced by soft pulse or weak or irregular heart action. The remaining 30 showed evidence of serious circulatory failure, and 8 of these died. In all cases death took place from early heart failure within ten days of admission to hospital.

Table showing the Diphtheria Death-rate according to the Day of Disease on which Serum was given.

Day of Disease on which Serum given			Number of Patients	Number of Deaths	Number of Deaths per cent.
1st	...	...	110	...	...
2nd	...	...	123	3	2.4
3rd	...	...	83	...	...
4th	...	...	41	3	7.3
5th	...	...	26	1	3.8
Later than 5th	...	...	46	3	6.5
Totals			429	10	2.3

Of the patients who died, 4 were under 5 years, 5 were in the 5-10 years group, and the remaining patient was 11 years old.

Of the patients who died in spite of receiving serum on the second day of the disease, 2 were exceedingly poisoned cases, with extensive membrane formation on the tonsils, fauces, palate and uvula, spreading into the nasal passages. In one case, 160,000 units of antitoxin were given before the membrane ceased to spread and in the other, 120,000 units; both died from early heart failure. The other case receiving serum on the second day really died from the effects of a malignant tumour in the leg with secondaries in the lungs.

Measles.—Thirty-seven patients were admitted as cases of measles. Of these, 31 were true cases of measles, 2 were suffering from rubella, and 4 had merely erythema. Two cases intimated as scarlet fever and one as diphtheria proved to be cases of measles, and are included in the appropriate sections of this report. Of the 31 cases of measles, 2 died from broncho-pneumonia, 1 being a child of 6 months and the other of two years. The hospital mortality was therefore 6.4 per cent.

The principal complications met with were:—

Laryngitis	...	...	...	3
Broncho-pneumonia	...	...	...	8
Otorrhoea	...	...	...	4
Adenitis	...	...	...	1
Enteritis	...	...	...	1
Scarlet Fever	...	...	...	1

At the end of the year the biennial measles epidemic was at its height, and the pavilion set aside for the reception of measles cases under 5 years of age was working at full capacity. At the time of writing (April, 1933) the epidemic has just concluded, and it is proposed to re-open the pavilion for scarlet fever on 1st May. Thirty-six beds have therefore been set aside exclusively for measles for a period of six months.

Enteric Fever.—Eleven patients were admitted as likely to be suffering from enteric infection. Of these, 8 were true cases of enteric, 6 being infections with *B. Typhosus*, 1 with *B. Paratyphosus B*, and 1 with *B. Paratyphosus A*; all recovered; none suffered a relapse.

Erysipelas.—Five cases of this disease were admitted, all of the facial type. Of these, one (a woman of 78 years) died, a long standing diabetes contributing to the fatal termination. All received doses of scarlatinal antitoxin in doses of from 10-60 c.c., with markedly beneficial effects in 4 of the cases.

Cerebro-Spinal Meningitis.—Thirteen patients were admitted as possible cases of this disease. Ten cases (all bacteriologically confirmed) proved to be instances of meningococcal meningitis. Of these, 5 recovered, their ages being respectively 1 year, 3 years, 5 years, 7 years and 18 years. Of the 5 who died, 3 were under 1 year and two

were 2 years of age. In those cases where the organism was typed, it was found to belong to Group I (Type III). All received large doses of anti-meningococcal serum intrathecally and intramuscularly. In the later stages of one case serum was also introduced on six occasions alternately into the right and left ventricles. The largest total amount of serum given in any one case by all three routes was 250 c.c. One case required lumbar puncture 15 times. The 5 cases who recovered developed no complications and seemed physically and mentally normal on discharge.

The three remaining cases admitted as meningitis proved to be tuberculous meningitis, glioma of brain (diagnosis confirmed post-mortem), and broncho-pneumonia with meningismus following whooping cough respectively. The first two died; the other recovered.

Anterior Poliomyelitis.—One case was admitted during the year, and on discharge was referred to the orthopaedic clinic for massage and remedial exercises.

Mumps.—Three cases were admitted during the year. Recovery was uneventful in all.

Whooping Cough.—Eight cases were admitted, of whom 4 had respiratory complications in the form of bronchitis or broncho-pneumonia. One of these, a premature baby, admitted moribund with broncho-pneumonia, died.

Chickenpox.—Nine cases were admitted to the wards, but one of these—an Arab seaman—was really suffering from secondary syphilis, and on discharge was referred to the Royal Hamadryad Seamen's Hospital for treatment of the venereal condition.

Rubella.—Two cases of this disease were treated in the wards. Both were admitted as measles.

Smallpox.—One case of variola minor was admitted during the year. Recovery was uneventful.

Puerperal Fever and Puerperal Pyrexia.—Sixteen cases were admitted, 14 being instances of the former condition and two of the latter. Of the 14 puerperal fever cases, 7 were of septicaemic, 6 of sapraemic and one of pyaemic type. The cases of pyrexia were due respectively to bronchitis and pyelitis. Two of the puerperal fever cases died—one from cerebral embolism and one from an intercurrent bronchitis and influenza. The remaining puerperal cases recovered. All received scarlatinal antitoxin in doses of from 10-60 c.c. During the year the Remington Hobbs treatment with intra-uterine glycerine was introduced, with uniformly favourable results.

Other Diseases.—In addition to the above-mentioned diseases, there were admitted to the wards 32 other patients, who were finally classified as follows:—

<i>Disease.</i>					<i>Number.</i>
Lobar pneumonia	...	...	...	...	5
Broncho-pneumonia	...	...	...	...	1
Pulmonary congestion	...	...	...	...	1
Asthma	...	...	...	...	1
Tuberculous peritonitis	...	...	...	...	1
Tonsilitis	...	...	...	...	4
Quinsy	...	...	...	...	1
Tuberculous adenitis and marasmus	...	...	...	...	1
Cellulitis and other septic skin conditions	...	...	...	...	4
Pemphigus	...	...	...	...	2
Influenza	...	...	...	...	2
Gastritis	...	...	...	...	1
Gastro-enteritis	...	...	...	...	2
Enteritis	...	...	...	...	4
Dysentery	...	...	...	...	1
Rheumatism	...	...	...	...	1
Total ...					32

Of these, all recovered with the exception of a marasmic baby who had tuberculous adenitis.

Laboratory Work.—The following is a summary of the bacteriological examinations of various kinds conducted in the hospital laboratory during the year :—

Examinations				Positive	Negative	Totals
Specimens for diphtheria	...	...	...	927	1,684	2,611
Blood for Widal reaction	...	...	...	5	3	8
Urines	...	...	...	...	...	17
Blood counts	...	...	...	...	...	2
Faeces	...	...	...	...	...	9
Cerebro-spinal fluid	...	...	...	...	...	51
Miscellaneous examinations	...	...	...	...	...	3
Total	...	...	...	...	...	2,701

Schick and Dick Tests.—The following table shows the number of scarlet fever patients Schick tested, and the number of the diphtheria patients who were Dick tested during the year :—

			Number Positive	Number Negative	Totals	Percentage Positive
Schick test	...	...	291	283	574	50·6
Dick test	...	...	288	218	506	56·9

V.—LORD PONTYPRIDD HOSPITAL (DULWICH HOUSE).

Report for 1932 of Dr. Chris. J. McSweeney.

There were 25 children in hospital at mid-night on 31st December, 1931, and during 1932, 146 cases were admitted and 147 discharged, 24 cases remaining in hospital on 31st December, 1932. No deaths occurred in the institution during the year. Of the 147 cases discharged, 138 were treated to a conclusion and returned to their own homes free of active signs of rheumatism.

Of the remaining 9 children, 3 were found to be diphtheria carriers and were transferred to the City Isolation Hospital. Two were found to be suffering from ringworm of the scalp, and, at the request of their parents, were withdrawn from hospital. Two children developed mumps, one of these being transferred to the City Isolation Hospital, the other going home. The co-ordination now existing between the Lord Pontypridd Hospital and the City Isolation Hospital is such that, when it is necessary to transfer an infectious case from the former to the latter institution, the treatment of the rheumatic condition goes on without interruption. The remaining two children were transferred to the City Lodge, one for operation on an acute bone condition which developed subsequently to her admission to Lord Pontypridd Hospital, and the other for completion of convalescence from a chronic endocarditis which had failed to respond to prolonged treatment in the hospital.

The 138 cases treated to a conclusion include 25 children admitted during 1931 and discharged in 1932, but exclude those cases still in hospital on 31st December, 1932.

The medical reasons for admission of the 146 cases during 1932 were:—

Chorea alone	...	...	...	...	2
Chorea and early carditis	...	...	...	...	53
Rheumatic pains alone	...	...	...	...	2
Rheumatic pains and early carditis	...	...	...	...	62
Early carditis without pains or choreic symptoms	...	...	...	...	3
Chorea and valvular disease of the heart	...	...	...	...	5
Rheumatic pains and valvular disease of the heart	...	...	...	...	8
Valvular disease of the heart without other rheumatic symptoms	...	...	...	...	1
Rheumatic pains and chorea with early carditis	...	...	...	...	9
Rheumatic pains and chorea with valvular disease of the heart	...	...	...	...	1
Total					146

The ages of the children varied from 4 years to 14 years. Forty-three were boys and 103 were girls—a sex distribution corresponding fairly closely with the figures for 1931, but differing markedly from that of the cases in each of the two previous years, when the numbers of boys and girls admitted were almost equal, as shown in the following table:—

Year	Boys	Girls	Totals
1929	35	37	72
1930	57	58	115
1931	51	103	154
1932	40	103	143
Totals	183	301	484

All cases admitted were suffering from acute or sub-acute rheumatism of one form or another, and in all except four cases some abnormality of the heart was present. Broadly speaking, these abnormalities may be classified into "minor" (h) and "major" (H). As in previous reports, the expression "minor cardiac manifestations" denotes the earlier phases of carditis, and children classified as presenting them may be taken as free from valvular disease. This early phase of rheumatic carditis is thought to be myocardial in nature and is evidenced clinically by impairment in the quality of the first sound of the heart with some enlargement of the heart chambers. Many of these cases clear up completely with treatment and the heart returns to normal, but a certain number are left with some appreciable hypertrophy of the ventricles. In the absence of clinical evidence pointing to valvular incompetence, a child presenting, on discharge, residual signs of abnormality in the quality of the heart sounds is graded as "h." Any child, either on admission or discharge, presenting the classical signs of a leaking valve is classed as "H." Most of those graded as "h" on admission have become normal at discharge. Roughly, a third of them remain as "h" and one or two may progress to "H." Children thought to be "H" on admission have occasionally made so much improvement as to merit being graded as "h" on discharge. All cases in the group designated "treated to a conclusion" were entirely free of active rheumatism on discharge.

The condition of the heart on admission and discharge of the 138 cases treated to a conclusion during 1932 is set out in the following table:—

Condition of Heart	On Admission	On Discharge
Normal	4	85
Minor Cardiac Manifestations ("h")	118	40
Major Cardiac Manifestations ("H")	16	13
Totals ...	138	138

The following table gives the condition of the heart on admission and discharge of all cases treated to a conclusion since the opening of the hospital in April, 1929:—

Years 1929-32	Condition of Heart			Totals
	Normal	Minor Cardiac Manifestations "h"	Major Cardiac Manifestations "H"	
On admission ...	46	315	67	428
On discharge ...	277	94	57	

During the summer months advantage is taken of the spacious lawn to treat the children, as far as possible, in the open air. During settled weather all the children are wheeled out and lie on their beds wearing a minimum of clothing. Six children and a nurse sleep out of doors in open-air shelters from April to September. The children pigment markedly under the open-air regime and appear to part with their rheumatic manifestations more rapidly than when treated in the wards.

A new means of assessing the degree of activity of juvenile rheumatism was introduced during the year and is now regularly employed in the hospital routine. Briefly, the test estimates the rate of sedimentation of the red blood cells, which is always increased when the disease is active. The test as usually carried out involves puncture of a vein to obtain blood but, with the help of Dr. Parry Morgan, a simpler technique has been devised, by means of which sufficient blood can be obtained by pricking a finger. Fixed volumes of blood are taken into an automatic pipette, and are then mixed with a standard solution of sodium citrate in a hollow glass slide. A column of citrated blood 100 millimetres in length is next taken up and allowed to stand in a sealed capillary tube, and readings of the height of clear fluid are taken at the end of one and two hours. The first hour's reading is the more significant one. The normal child gives a reading of under 10 mm. as a rule, whereas in children with acute active rheumatism the length of clear fluid may be as much as 40, 50, 60 or even more in one hour. Sub-acute forms yield correspondingly lower readings (20-30 mm.). In dealing with a disease like juvenile rheumatism, which tends to smoulder for long periods without producing definite external manifestations of activity, the value of a test of this sort in assessing activity is considerable.

Since April, 1932, the test has been used as a guide in the admission and discharge of children, and it is also employed in assessing the progress of children under treatment at the hospital. During the year, 310 sedimentation tests were carried out at the hospital.

The growth of rheumatic supervisory work (indicated by the figures given below) led during the year to the establishment of an out-patient clinic at the hospital, to which special cases, including all potential admissions other than bed-ridden cases, are referred. The advantage of this arrangement is that uniformity in the selection of cases for admission is ensured and advantage is taken of the hospital facilities to perform a sedimentation test on every case so referred. The out-patient clinic is held once weekly and the number of cases attending is deliberately kept so low as to allow a thorough investigation of each case to be made.

The following table shows the marked growth of this work during the last year. As this is best appreciated when the figures for the previous year are considered, these have been included:—

	1931.	1932.
Cases remaining under supervision at beginning of year ...	350	704
New cases attending	383	449
Cases remaining under supervision at end of year	704	1,124
Cases discharged from supervision during the year because of attaining the age of 14 years	29	29
Total attendances:—		
At Routine Rheumatism Clinics	1,545	2,820
At Out-patient Clinic (Established 6th April, 1932) ...	...	112
Routine clinic sessions held	92	162
Out-patient clinic sessions held ... ..	...	35
Average number of attendances at Routine Rheumatism Clinic	17.0	17.4
Average number of new cases at Routine Clinic sessions ...	4	4
Average number of attendances at Out-patient Clinic ...	...	3.2

As all ascertained rheumatic children are kept under supervision until they leave school, it will be obvious from a consideration of the figures for new cases and cases discharged that the numbers under supervision will continue to grow for some years yet. The amount of staff time spent in this work has, of course, increased proportionately with the development of the scheme. Apart from the out-patient clinic and the supervision of the hospital, three sessions were devoted weekly by Dr. Anderson to rheumatism supervisory work during 1932.

As stated in the report for last year, it is proposed to give each year details as to the condition of the heart in all cases ceasing to remain under supervision during that year. The figures for the year 1932, as compared with 1931, are as follows:—

	1931		1932	
	On Ascertainment	On Discharge	On Ascertainment	On Discharge
Normal	5	8	5	15
Minor heart manifestations (h) ...	11	6	17	8
Major heart manifestations (H) ...	13	15	7	6
Totals... ..	29	29	29	29

It will be noted that the figures for 1932 show a much larger proportion of normal hearts among children discharged from supervision. It should be remembered that many of the cases attaining the age of 14 years during 1931 and 1932 had developed valvular heart disease before the inauguration of the rheumatism scheme. For this reason, it is reasonable to expect that the proportion of rheumatic “leavers” having normal hearts will continue to increase in future years. There will always be some children, of course, who, in spite of every effort to prevent it, will develop permanent heart disease.

The types of heart disease present in the six cases having major cardiac manifestations on discharge were:—

Mitral regurgitation	3
Mitral stenosis... ..	2
Aortic regurgitation	1
Total	6

Five of these children had developed permanent heart disease at the time of coming under supervision.

VI.—POOR LAW MEDICAL SERVICE.

The following table shows the numbers of attendances of patients at the surgeries of the district medical officers and the visits paid to the homes of patients by these officers during 1932:—

Name of District	Whether Whole- or Part-Time D.M.O.	Attendances of Patients at Surgery	Attendances of Patients at Surgery for Medicine only	Visits to Homes of Patients
Roath	Whole-time	11,782	4,198	8,380
Central	do.	8,457	7,987	1,900
Canton	Part-time	3,276	722	1,503
South	do.	686*	437*	213*
Gabalfa	do.	839	688	502
Llanishen	do.	57	15	76
Totals	—	25,097	14,047	12,574

*Excluding the period 28th February—30th July, for which the figures were not received.

The following tabular statements show the hospital provision and the work undertaken during 1932 in connection with the institutional treatment of the sick at the City Lodge and Ely Lodge Poor Law Institutions.

CITY LODGE.

(1) Classification of the accommodation for the sick and the number of beds occupied on 31st December, 1932:—

Classification of Wards	Num- ber of Wards	BEDS							
		Men		Women		Children (under 16 years)		Totals	
		Pro- vided	Occu- pied	Pro- vided	Occu- pied	Pro- vided	Occu- pied	Pro- vided	Occu- pied
Medical (Acute)...	5	38	38	33	32	...	...	71	70
Surgical	5	32	25	54	48	...	...	86	73
Chronic Sick ...	23	241	253*	160	168*	...	...	401	421*
Children	4	...	...	...	...	94§	76	94	76
Venereal Disease	2	12	10	6	...	...	...	18	10
Tuberculosis ...	4	43	39	15	14	...	...	58	53
Maternity	2	...	...	23	11	...	...	23	11
Mental Disease ...	2	6	...	6	1	...	...	12	1
Totals	47	372	365	297	274	94	76	763	715

*Beds transferred in emergency. §Including 70 cots.

(2) In-patients:—

1.	Total number of admissions (including infants born in hospital) ...	4,854
2.	Number of women confined in hospital	173
3.	Number of live births	154
4.	Number of still-births	17
5.	Number of deaths among the newly-born	11
6.	Total number of deaths among children under one year ...	60
7.	Number of maternal deaths among women confined in hospital ...	1
8.	Total number of deaths	733
9.	Total number of discharges	4,195
10.	Duration of stay of patients included in 8 and 9 above:—	
	(a) Four weeks or less	3,234
	(b) Exceeding four weeks but under thirteen weeks	1,217
	(c) Exceeding thirteen weeks	477
11.	Number of beds occupied:—	
	(a) Average during the year	758
	(b) Highest	803
	(c) Lowest	681
12.	Number of surgical operations under general anaesthetic (excluding dental operations)	1,124
13.	Number of abdominal sections	361

(3) Out-patients:—

1.	Nature and scope of out-patient provision:—Cases after discharge from hospital attend for continuation treatment. Casualties after treatment are referred to private practitioners or, if urgent, admitted to the institution.	
2.	Total number of persons seen in the out-patient department ...	881
3.	Number of these persons who were subsequently admitted for in-patient treatment in the institution	282
4.	Number of these persons who had received in-patient treatment in the institution	275
5.	Total number of attendances in the out-patient department ...	4,862

(4) Classification of in-patients who were discharged from or who died in the institution during the year:—

Disease Groups	Children (under 16 years)		Men and Women	
	Dis-charged	Died	Dis-charged	Died
Acute infectious disease	36	3	10	1
Influenza	2	...	18	...
Tuberculosis:—				
Pulmonary	10	8	114	87
Non-pulmonary	9	7	27	9
Malignant disease ... ..	...	...	77	68
Rheumatism:—				
Acute rheumatism (rheumatic fever) together with sub-acute rheumatism and chorea ...	40	...	40	2
Non-articular manifestations of so-called "rheumatism" (muscular rheumatism, fibrositis, lumbago and sciatica) ... ..	...	...	17	...
Chronic arthritis	1	...	31	...
Venereal disease	2	...	75	1
Puerperal pyrexia ... ..	...	...	...	...
Puerperal fever:—				
Women confined in the hospital ... ..	...	...	...	...
Admitted from outside ... ..	...	...	2	1
Other diseases and accidents connected with pregnancy and child-birth ... ..	...	...	114	3
Mental diseases:—				
Senile dementia ... ..	...	...	45	...
Other	5	...	257	...
Senile decay ... ..	...	...	19	43
Accidental injury and violence	86	6	224	33
Diseases of the:—				
Nervous system and sense organs	40	8	172	8
Respiratory system	70	18	223	31
Circulatory system	16	4	252	234
Digestive system	80	9	383	36
Genito-urinary system	43	1	470	39
Skin	56	...	82	...
Other diseases	250	40	476	26
Mothers and infants discharged from maternity wards (not included above):—				
Mothers ... ..	...	...	185	...
Infants	136	7	...	...
Totals	882	111	3,313	622

ELY LODGE.

(1) Classification of the accommodation and the number of beds occupied on 31st December, 1932:—

Classification of Wards	Number of Wards	BEDS.							
		Men		Women		Children (under 16 years)		Totals	
		Pro-vided	Occu-pied	Pro-vided	Occu-pied	Pro-vided	Occu-pied	Pro-vided	Occu-pied
Mental Disease ...	14 {	160	146	187	193†	35	16	382	355
Mental Defectives*		51	44	39	36	4	9†	94	89
Other (Infirm) ...		80	71	28	24	1	1	109	96
Totals ...	20	291	261	254	253	40	26	585	540

*The beds earmarked for mental defectives are those recognised for this purpose by the Board of Control. Many of the so-called mentally diseased are really defectives admitted under lunacy orders in terms of Section 24 of the Lunacy Act, 1890.

†Beds transferred in emergency.

(2) In-patients:—

Total number of admissions	...	...	...	...	...	168
Total number of deaths	...	...	...	...	...	61
Total number of discharges	...	...	...	...	...	110
Duration of stay of patients:—						
(a) Four weeks or less	...	...	...	...	...	27
(b) Exceeding four weeks but under thirteen weeks	...	...	...	...	...	27
(c) Exceeding thirteen weeks	...	...	...	...	...	117
Number of beds occupied:—						
(a) Average during the year	...	...	...	...	...	540
(b) Highest	...	...	...	...	...	562
(c) Lowest	...	...	...	...	...	529

(3) Classification of in-patients who were discharged from or who died in the institution during the year:—

Disease Groups	Children (under 16 years)		Men and Women	
	Dis-charged	Died	Dis-charged	Died
Influenza	...	1	...	16
Tuberculosis (Pulmonary)	1
Malignant disease	2
Senile dementia	53	40
Disease of the Digestive System	...	1	...	...
Other diseases (Infirm Patients)	57	...
Totals	...	2	110	59

VII.—HOSPITAL ACCOMMODATION.

The tabular statement given below shows the amount of hospital accommodation for the sick and others in need of special care provided by the City Council and other bodies, classified according to the type of function each subserves. In addition, Llandough Hospital, a general municipal hospital which is at present in course of construction, will provide 340 beds for acute diseases, approximately 255 of which will be available for Cardiff patients.

When Llandough Hospital is in use, acute cases (including children) will cease to be treated at the City Lodge; the present accommodation for such cases at the latter institution will then be available for other purposes.

Institution	Total available Beds	Approximate Number available for Cardiff
Isolation Hospital (including old Smallpox Hospital) ...	151*	151*
Caerau Smallpox Hospital	31†	31†
Flatholm Hospital (for Cholera, Yellow Fever and Plague) ...	16	16
Lord Pontypridd Hospital (Dulwich House)	25	25
City Lodge Poor Law Institution‡ :—		
Acute Diseases	269	
Maternity :—		
Mothers	23	
Infants	14	
Tuberculosis	58	
Mental Cases	12	
Chronic, Aged and Infirm	401	
	777	653
Ely Poor Law Institution‡ :—		
Mental Cases (including Mental Defectives)	477	
Chronic, Aged and Infirm	108	
	585	515
Mental Hospital	790	690
Total Rate-provided	2,375	2,081
Cardiff Royal Infirmary :—		
General	380	
Maternity :—		
Mothers	31	
Infants	25	
Convalescent Home	54	
	490	260
Prince of Wales' Hospital :—		
General	64	
Country Branch	72	
	136	12
Royal Hamadryad Seamen's Hospital	74	...
Total Voluntary	700	272
Grand Total	3,075	2,353
Sanatoria and Hospitals of the Welsh National Memorial Association ... ..	...	116

*Total adult accommodation on the basis of 144 sq. ft. per adult bed. This represents about 230 available beds and cots when allowance is made for children under 10 years.

†On the basis of 154 sq. ft. per adult bed, representing about 48 beds actual accommodation when allowance is made for children under 10 years.

‡The accommodation for chronic, aged and infirm in the City Lodge and Ely Institution and for patients suffering from mental diseases, disorders or defects at Ely Institution fluctuates slightly with requirements. Many of the beds set apart for chronic cases at the City Lodge are really occupied by patients requiring continuous medical or surgical and nursing care. The figures for Ely Institution also include accommodation approved by the Board of Control for mental defectives (about 90) who are chargeable to the Mental Deficiency Committees of the Authorities responsible for their maintenance.

VIII.—TUBERCULOSIS.

New Cases of Tuberculosis.—The following tables show the age distribution and localisation of the disease among new cases of tuberculosis* coming to the knowledge of the Department during 1932 :—

Cases of Tuberculosis by Age and Sex.

Age Periods— Years	New Cases					
	Pulmonary			Non-Pulmonary		
	Males	Females	Totals	Males	Females	Totals
0—1	1	...	1	2	1	3
1—5 ... ..	...	1	1	11	9	20
5—10	4	6	10	8	4	12
10—15	6	6	12	5	9	14
15—20	20	24	44	5	2	7
20—25	31	32	63	7	6	13
25—35	64	36	100	12	9	21
35—45	41	22	63	10	1	11
45—55	29	17	46	4	4	8
55—65	12	9	21	1	2	3
65 and upwards	3	3	6	...	1	1
Totals	211	156	367	65	48	113

Cases of Tuberculosis by Localisation of Disease and Sex.

Form of Tuberculosis	New Cases		
	Males	Females	Totals
Respiratory System	211	156	367
Nervous System	12	12	24
Intestines and Peritoneum	4	6	10
Vertebral Column	6	2	8
Bones and joints	16	8	24
Other Organs	25	19	44
Disseminated Tuberculosis	2	1	3
Totals	276	204	480

Sources of Ascertainment.—The new cases of tuberculosis were ascertained as follows :—

Source	Pulmonary	Non-Pulmonary	Totals
General Medical Practitioners	110	14	124
Welsh National Memorial Association	128	41	169
Medical Officers of Institutions	104	45	149
Other Medical Officers	11	1	12
Otherwise ascertained	14	12	26
Totals	367	113	480

*Including cases notified after death, deaths of cases not notified and cases ascertained otherwise than by formal notification.

Home Conditions.—A detailed analysis is given below showing the actual living and sleeping conditions within their own tenements of 295 new cases of pulmonary tuberculosis coming to the knowledge of the Department during 1932.

Living accommodation of 295 Patients in Private Houses.

Rooms in Tenement (i.e., house or part of house occupied by one family)	Patients			Total Number of Persons in Household			
	Males	Females	Totals	Over 10 years	Under 10 years	Lodgers	Totals
1 room ...	8	1	9	16	1	...	17
2 rooms ...	15	17	32	64	25	...	89
3 rooms ...	18	17	35	116	35	...	151
4 rooms and over	115	104	219	983	149	7	1,139
Totals ...	156	139	295	1,179	210	7	1,396

In addition to the foregoing 295 cases, there were 18 cases (11 males and 7 females) in institutions and 28 males in lodging houses at the time of notification. Information as to the living accommodation of the remaining 26 cases (15 males and 11 females) could not be ascertained for various reasons.

Sleeping accommodation of 295 Patients suffering from Pulmonary Tuberculosis and living in Private Houses.

Rooms in Tenement (i.e., house or part of house occupied by one family)	Patients				Contacts		
	With Room to Self	With Bed but not Room to Self	With neither Bed nor Room to Self	Totals	Sleeping in same bed as Patient	Sleeping in separate Bed but in same Room as Patient	Totals
1 room ...	4	1	4	9	4	4	8
2 rooms ...	5	2	25	32	30	19	49
3 rooms ...	10	5	20	35	20	18	38
4 rooms and over	113	32	74	219	79	63	142
Totals ...	132	40	123	295	133	104	237

It will be seen that only 132, or 44·7 per cent., of the new cases had sleeping rooms to themselves, and that the number of contacts exposed to infection in the same bedrooms was 237. The accommodation for new cases in 1932, both for living and sleeping, shows no improvement upon the conditions recorded in previous years.

Known Cases of Tuberculosis.—The numbers of cases of tuberculosis remaining on the register at the end of 1932 were as follows:—

Pulmonary—

Males ...	...	586
Females ...	...	426

Total ... 1,012

Non-Pulmonary—

Males ...	...	233
Females ...	...	180

Total ... 413

Grand Total ... 1,425

Of the foregoing cases, the numbers who were under observation by the tuberculosis nurses were as follows* :—

Pulmonary :—			
Males ...	...	...	503
Females	...	...	379
<hr/>			
Total	882
Non-Pulmonary :—			
Males	208
Females	166
<hr/>			
Total	374
<hr/>			
Grand Total	1,256
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In addition to the cases referred to above, 98 unnotified cases of suspected tuberculosis (51 males and 47 females) were under observation by the nurses at the end of the year.

The number of known cases of tuberculosis (1,425) shows a decrease of 6 compared with the number at the end of 1931.

During 1932 the tuberculosis nurses made 449 first visits and 2,336 revisits to the homes of patients.

Deaths.—According to local records, 234 deaths from pulmonary tuberculosis and 48 from other forms of tuberculosis occurred during 1932. The death-rate per 1,000 from pulmonary tuberculosis was 1·05, compared with 1·06 in 1931 and with 1·17 during the ten years 1922-31; the death-rate from other forms of the disease was 0·21 per 1,000, as against 0·23 in 1931 and 0·24 during the ten years 1922-31.

The two following tables show the age distribution and localisation of the disease among the deaths from tuberculosis during the year.

Deaths from Tuberculosis by Age and Sex.

Age Periods—Years				DEATHS					
				Pulmonary			Non-Pulmonary		
				Males	Females	Totals	Males	Females	Totals
0—1	...	...	...	1	...	1	1	1	2
1—5	...	...	...	...	1	1	5	4	9
5—10	...	...	...	...	3	3	1	2	3
10—15	...	...	...	3	1	4	1	4	5
15—20	...	...	...	9	9	18	5	2	7
20—25	...	...	...	16	11	27	2	2	4
25—35	...	...	...	41	27	68	5	3	8
35—45	...	...	...	39	14	53	3	...	3
45—55	...	...	...	24	15	39	4	2	6
55—65	...	...	...	13	4	17	...	1	1
65 and upwards	...	...	...	...	3	3	...	...	...
Totals				146	88	234	27	21	48

*Cases regarded as not being under observation are those (1) permanently residing in institutions, (2) temporarily residing in institutions whose home addresses are unknown, (3) who by special request are not visited and (4) who have been "lost sight of."

Deaths from Tuberculosis by Sex and Localisation of Disease.

Form of Tuberculosis	DEATHS		
	Males	Females	Totals
Respiratory System	146	88	234
Nervous System	10	12	22
Intestines and Peritoneum	6	5	11
Vertebral Column	3	1	4
Joints ... ..	...	...	...
Other Organs	3	...	3
Disseminated Tuberculosis	5	3	8
Totals	173	109	282

Thirty-six of the 282 deaths (12·7 per cent.) were of cases previously unknown to the Department, 17 of these being pulmonary cases (7·2 per cent.) and 19 non-pulmonary (39·6 per cent.)

Treatment.—The following tables give particulars of Cardiff cases examined and of cases treated under the scheme of the Welsh National Memorial Association during 1932.

1.—WORK OF THE DISPENSARY.

	Pulmonary				Non-Pulmonary				Totals			
	Adults		Children		Adults		Children		Adults		Children	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
A.—New cases examined during the year (excluding contacts):—												
(a) Definitely tuberculous	123	82	3	5	18	8	18	11	141	90	21	16
(b) Diagnosis not completed ... ..	...	...	...	...	...	...	...	...	15	15	13	10
(c) Non-tuberculous ... ..	...	...	...	...	...	...	...	...	106	95	45	56
B.—Contacts examined during the year:—												
(a) Definitely tuberculous ... ..	...	...	...	1	...	...	...	...	...	...	...	1
(b) Diagnosis not completed ... ..	...	...	...	...	...	...	...	...	4	4	3	11
(c) Non-tuberculous ... ..	...	...	...	...	...	...	...	...	41	62	48	49
C.—Cases written off the Dispensary Register as:—												
(a) Recovered	9	5	2	...	4	5	3	8	13	10	5	8
(b) Non-tuberculous (including cases previously diagnosed and entered on the Dispensary Register as tuberculous) ... ..	...	...	...	...	...	...	...	...	157	166	95	113
D.—Number of cases on Dispensary Register on December 31st:—												
(a) Definitely tuberculous	365	219	16	22	61	50	85	64	426	269	101	86
(b) Diagnosis not completed ... ..	...	...	...	...	...	...	...	...	17	18	17	26

1.	Number of cases on Dispensary Register on January 1st	...	...	933
2.	Number of cases transferred from other areas and cases returned after discharge under Head 3 in previous years	...	...	31
3.	Number of cases transferred to other areas, cases not desiring further assistance under the scheme, and cases "lost sight of"	...	...	126
4.	Cases written off during the year as dead (all causes)	...	...	157
5.	Number of attendances at the Dispensary (including contacts)	...	...	6,626
6.	Number of Insured Persons under Domiciliary Treatment on December 31st	...	...	28
7.	Number of consultations with medical practitioners:—			
	(a) Personal	...	...	147
	(b) Other	...	...	804
8.	Number of visits by Tuberculosis Officers to homes (including personal consultations)	...	...	487
9.	Number of visits by Nurses or Health Visitors to homes for Dispensary purposes	...	...	2,785
10.	Number of:—			
	(a) Specimens of sputum examined in connection with Dispensary Work	...	...	530
	(b) X-Ray examinations made in connection with Dispensary Work	...	...	657
11.	Number of "Recovered" cases restored to Dispensary Register and included in A (a) and A (b) above	...	...	2
12.	Number of "T.B. plus" cases on Dispensary Register on December 31st	...	...	440

2.—RESIDENTIAL TREATMENT.

		In Institutions on Jan. 1st.	Admitted during the year	Discharged during the year	Died in Institutions	In Institutions on Dec. 31st.
Number of doubtfully tuberculous cases admitted for observation	Adult males	...	2	2	...	...
	Adult females	2	4	6	...	...
	Children	...	5	2	...	3
	Totals	2	11	10	...	3
Number of definitely tuberculous patients admitted for treatment	Adult males	67	95	87	19	56
	Adult females	30	60	51	7	32
	Children	28	32	33	...	27
	Totals	125	187	171	26	115
Grand Totals		127	198	181	26	118

3.—RESULTS OF OBSERVATION OF DOUBTFULLY TUBERCULOUS CASES DISCHARGED FROM RESIDENTIAL INSTITUTIONS.

(a) Sanatorium and Hospital (Pulmonary Cases).

Diagnosis on discharge from Observation			Stay under 4 weeks			Stay over 4 weeks			Totals		
			M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.
Tuberculous	...	...	2	2	...	...	1	1	2	3	1
Non-tuberculous	...	...	...	...	...	...	1	...	...	1	...
Doubtful	...	...	...	...	...	...	...	...	...	...	...
Totals	...	...	2	2	...	...	2	1	2	4	1

(b) Hospital (Non-Pulmonary Cases).

Diagnosis on discharge from Observation			Stay under 4 weeks			Stay over 4 weeks			Totals		
			M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.
Tuberculous	1	...	...	1
Non-tuberculous	1	...	...	...	...	...	1	...
Doubtful	1	...	...	1	...
Totals	1	...	...	1	1	...	2	1

4.—IMMEDIATE RESULTS OF TREATMENT OF DEFINITELY TUBERCULOUS PATIENTS DISCHARGED FROM RESIDENTIAL INSTITUTIONS.

(a) Sanatorium (Pulmonary Cases).

Condition at time of Discharge				Duration of Residential Treatment												Totals
				Under 3 months			3-6 months			6-12 months			More than 12 months			
				M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	
Quiescent...	...	...	2	...	...	7	8	2	3	1	2	...	...	1	26
Not Quiescent	...	...	6	4	1	11	8	...	9	8	1	8	...	...	56
Died	...	...	1	...	...	1	...	...	1	...	...	...	...	...	3
Totals	...	...	9	4	1	19	16	2	13	9	3	8	...	1	85

(b) Hospital (Pulmonary Cases).

Condition at time of Discharge				Duration of Residential Treatment										Totals		
				Under 3 months			3-6 months			6-12 months			More than 12 months			
				M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.		F.	Ch.
Quiescent ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Not Quiescent	...	...	13	1	2	13	11	2	6	5	...	3	...	56
Died	...	...	6	...	...	4	3	...	2	1	...	...	2	18
Totals	...	...	19	1	2	17	14	2	8	6	...	3	2	74

(c) Hospital (Non-Pulmonary Cases).

Condition at time of Discharge	Duration of Residential Treatment												Totals	
	Under 3 months			3-6 months			6-12 months			More than 12 months				
	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.		
Quiescent	3	...	1	1	1	...	2	...	...	2	10	
Not Quiescent	4	3	4	4	1	...	2	...	1	4	23
Died	1	1	...	...	...	2	...	...	1	...	...	5	
Totals	5	4	7	...	1	5	4	...	4	1	1	6	38

IX.—VENEREAL DISEASES.

The following is a summary of the returns from treatment centres established under the Public Health (Venereal Diseases) Regulations, 1916:—

	Cardiff Royal Infirmary	Royal Hamadryad Seamen's Hospital*	Auxiliary Centre for Mothers and Children	Institutions outside Cardiff	Totals
A. Number of persons residing in Cardiff dealt with during the year for the first time and found to be suffering from:—					
Syphilis	135	198	41	3	377
Soft Chancre	1	95	...	...	96
Gonorrhoea	227	297	107	8	639
Conditions other than Venereal	138	19	107	...	264
Totals	501	609	255	11	1,376
B. Number of attendances of all patients residing in Cardiff	13,022	10,004	3,772	128	26,926
C. Aggregate number of "in-patient days" of all patients residing in Cardiff ... ..	...	1,707	...	...	1,707
D. Number of doses of arsenobenzene compounds given to patients residing in Cardiff	1,751	594	778	2	3,125

Examination of pathological material from patients residing in Cardiff and patients at institutions in or belonging to Cardiff:—

	Microscopical		Serum Tests.		
	Spiro- chetes	Gono- cocci	Wasser- mann	Others for Syphilis	For Gonor- rhoea
Specimens examined at Treatment Centres:—					
Cardiff Royal Infirmary ... ..	...	430	600	...	...
Royal Hamadryad Seamen's Hospital* ...	39	111	...	...	...
Specimens examined at the Cardiff and County Public Health Laboratory from:—					
Treatment Centres:—					
Royal Hamadryad Seamen's Hospital* ...	...	2	206	...	...
Auxiliary Centre for Mothers and Children	2	394	148	...	...
Public Health Department ... ..	...	3	1,057	...	...
Other sources	7	145	1,297	...	...
	9	544	2,708		
Totals	48	1,085	3,308	...	...

*The figures relate to seamen only, whether residents of Cardiff or not.

Results of Treatment.—The following summaries, relating to *all persons* treated during 1932, have been prepared from the annual returns of the clinical officers.

Cardiff Royal Infirmary.

	Syphilis		Soft Chancres		Gonorrhoea		Conditions other than Venereal		Totals			Per- centage
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Both Sexes	
(1) Number of cases on 1st January under treatment or observation ...	188	212	3	...	182	62	8	8	381	282	663	51.1
(2) Number of cases removed from the register during any previous year which returned during the year under report for treatment or observation of the same infection	2	...	...	...	2	...	...	...	4	...	4	0.3
(3) Number of cases dealt with for the first time during the year under report (exclusive of cases under Item 4) suffering from:—												
Syphilis, primary ...	47	12	...	...	...	...	...	...	47	12	59	4.5
" secondary ...	5	16	...	...	...	...	...	...	5	16	21	1.6
" latent in 1st year of infection ...	2	2	...	...	...	...	...	...	2	2	4	0.3
" all later stages ...	19	26	...	...	...	...	...	...	19	26	45	3.5
" congenital ...	10	12	...	...	...	...	...	...	10	12	22	1.7
Soft Chancres ...	...	...	3	...	...	...	...	...	3	...	3	0.2
Gonorrhoea, 1st year of infection	...	...	...	...	206	19	...	...	206	19	225	17.3
" later ...	...	...	...	...	16	9	...	...	16	9	25	1.9
Conditions other than venereal ...	...	...	...	...	...	...	140	32	140	32	172	13.3
(4) Number of cases dealt with for the first time during the year under report known to have received treatment at other Centres for the same infection ...	17	4	...	...	30	3	...	...	47	7	54	4.2
Totals ...	290	284	6	...	436	93	148	40	880	417	1,297	...
(5) Number of cases discharged after completion of treatment and final tests of cure ...	24	8	3	...	82	3	116	32	225	43	268	20.7
(6) Number of cases which ceased to attend before completion of treatment and were on first attendance suffering from:—												
Syphilis, primary ...	40	8	...	...	...	...	...	...	40	8	48	3.7
" secondary ...	5	13	...	...	...	...	...	...	5	13	18	1.4
" latent in 1st year of infection ...	6	2	...	...	...	...	...	...	6	2	8	0.6
" all later stages ...	19	3	...	...	...	...	...	...	19	3	22	1.7
" congenital ...	1	1	...	...	...	...	...	...	1	1	2	0.2
Soft Chancres ...	...	...	...	...	...	...	...	...	...	...	...	...
Gonorrhoea, 1st year of infection	...	...	...	...	117	10	...	...	117	10	127	9.8
" later ...	...	...	...	...	6	1	...	...	6	1	7	0.5
(7) Number of cases which ceased to attend after completion of treatment but before final test of cure	29	5	1	...	36	3	...	...	66	8	74	5.7
(8) Number of cases transferred to other centres or to institutions, or to care of private practitioners ...	11	8	...	...	9	4	...	...	20	12	32	2.5
(9) Number of cases remaining under treatment or observation on 31st December ...	155	236	2	...	186	72	32	8	375	316	691	53.3
Totals ...	290	284	6	...	436	93	148	40	880	417	1,297	...

Royal Hamadryad Seamen's Hospital (Seamen only).

	Syphilis	Soft Chancre	Gonorrhoea	Conditions other than Venereal	Totals	Per- centage
(1) Number of cases on 1st January under treatment or observation ...	48	19	49	...	116	14.8
(2) Number of cases removed from the register during any previous year which returned during the year under report for treatment or observation of the same infection	18	6	33	...	57	7.3
(3) Number of cases dealt with for the first time during the year under report (exclusive of cases under Item 4) suffering from:—						
Syphilis, primary ...	87	...	...	...	87	11.1
" secondary ...	27	...	...	...	27	3.4
" latent in 1st year of infection ...	...	...	...	...	...	...
" all later stages...	12	...	...	...	12	1.5
" congenital ...	...	...	...	...	...	...
Soft Chancre ...	...	72	...	...	72	9.2
Gonorrhoea, 1st year of infection ...	...	...	177	...	177	22.6
" later ...	...	...	42	...	42	5.4
Conditions other than venereal ...	...	...	...	19	19	2.4
(4) Number of cases dealt with for the first time during the year under report known to have received treatment at other Centres for the same infection ...	72	23	78	...	173	22.1
Totals ...	264	120	379	19	782	...
(5) Number of cases discharged after completion of treatment and final tests of cure ...	46	67	49	19	181	23.1
(6) Number of cases which ceased to attend before completion of treatment and were on first attendance suffering from:—						
Syphilis, primary ...	87	...	...	...	87	11.1
" secondary ...	7	...	...	...	7	0.9
" latent in 1st year of infection ...	...	...	...	...	...	...
" all later stages ...	5	...	...	...	5	0.6
" congenital ...	...	...	...	...	...	...
Soft Chancre ...	...	23	...	...	23	2.9
Gonorrhoea, 1st year of infection ...	...	...	124	...	124	15.9
" later ...	...	...	23	...	23	2.9
(7) Number of cases which ceased to attend after completion of treatment but before final test of cure	39	...	51	...	90	11.5
(8) Number of cases transferred to other centres or to institutions, or to care of private practitioners ...	42	14	75	...	131	16.7
(9) Number of cases remaining under treatment or observation on 31st December ...	38	16	57	...	111	14.2
Totals ...	264	120	379	19	782	...

42
Auxiliary Centre for Mothers and Children.

	Syphilis		Soft Chancere		Gonorrhoea		Conditions other than Venereal		Totals			Per- centage
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Both Sexes	
(1) Number of cases on 1st January under treatment or observation ...	18	78	...	...	...	87	1	10	19	175	194	41.4
(2) Number of cases removed from the register during any previous year which returned during the year under report for treatment or observation of the same infection	2	8	...	...	...	9	...	...	2	17	19	4.0
(3) Number of cases dealt with for the first time during the year under report (exclusive of cases under Item 4) suffering from:—												
Syphilis, primary ...	...	2	...	...	...	...	...	...	...	2	2	0.4
" secondary ...	...	1	...	...	...	...	...	...	...	1	1	0.2
" latent in 1st year of infection ...	...	3	...	...	...	...	...	...	...	3	3	0.6
" all later stages...	...	21	...	...	...	...	...	...	...	21	21	4.5
" congenital ...	6	6	...	...	...	...	...	...	6	6	12	2.6
Soft Chancere ...	...	...	...	...	...	...	...	...	...	...	...	...
Gonorrhoea, 1st year of infection ...	...	...	...	...	1	70	...	...	1	70	71	15.2
" later ...	...	...	...	...	...	35	...	...	...	35	35	7.5
Conditions other than venereal ...	...	...	...	...	...	...	4	103	4	103	107	22.9
(4) Number of cases dealt with for the first time during the year under report known to have received treatment at other Centres for the same infection ...	1	1	...	...	...	1	...	...	1	2	3	0.6
Totals ...	27	120	...	...	1	202	5	113	33	435	468	...
(5) Number of cases discharged after completion of treatment and final tests of cure ...	5	29	...	...	...	82	5	101	10	212	222	47.4
(6) Number of cases which ceased to attend before completion of treatment and were on first attendance suffering from:—												
Syphilis, primary ...	...	1	...	...	...	...	...	...	...	1	1	0.2
" secondary ...	...	...	...	...	...	...	...	...	...	...	...	...
" latent in 1st year of infection ...	...	2	...	...	...	...	...	...	...	2	2	0.4
" all later stages ...	...	21	...	...	...	...	...	...	...	21	21	4.5
" congenital ...	2	2	...	...	...	...	...	...	2	2	4	0.8
Soft Chancere ...	...	...	...	...	...	...	...	...	...	...	...	...
Gonorrhoea, 1st year of infection ...	...	...	...	...	...	31	...	...	...	31	31	6.6
" later ...	...	...	...	...	...	13	...	...	...	13	13	2.8
(7) Number of cases which ceased to attend after completion of treatment but before final test of cure ...	...	2	...	...	...	...	...	...	...	2	2	0.4
(8) Number of cases transferred to other centres or to institutions, or to care of private practitioners ...	...	2	...	...	1	9	...	...	1	11	12	2.6
(9) Number of cases remaining under treatment or observation on 31st December ...	20	61	...	...	...	67	...	12	20	140	160	34.2
Totals ...	27	120	...	...	1	202	5	113	33	435	468	...

During the year, 874 doses of arsenobenzene compounds were supplied in 53 instances to 23 individual medical practitioners (other than at treatment centres).

X.—MATERNITY AND CHILD WELFARE.

Notification of Births and Still-births.—The following statement shows the number of births and still-births notified as having occurred in Cardiff during the year:—

			<i>Births.</i>		<i>Still-births.</i>
By Medical Practitioners	...	...	38	...	1
By Midwives	...	...	2,596	...	121
By Queen's Nurses	...	...	502	...	31
By Parents	...	...	7	...	1
From Cardiff Royal Infirmary	...		535	...	70
From City Lodge Hospital	...		163	...	13
Totals	...		3,841*	...	237†

Child Welfare Consultations.—The following is a record of the attendances at the 11 child welfare centres:—

Number of Sessions	ATTENDANCES					Average Attendance at each Session
	Children under 1 year		Children 1 year to 5 years		Total	
	First	Subsequent	First	Subsequent		
693	2,093	18,256	425	7,994	28,768	41

The numbers of children who were in attendance at the centres at the end of the year were as follows:—

Children under one year	...	...	...	2,303
Children between 1 year and 5 years	...	...	...	2,391
Total	...			4,694

The following tabular statement shows the conditions found by medical officers in 1,957 infants under one year and 397 children between one and five years who were examined for the first time during 1932, and also the diseases or defects discovered subsequent to the first examination of children attending the consultations for the first time during 1932 or previously:—

*Including 283 not belonging to Cardiff.

† " 41 " " " "

	Examined for first time		Diseases or Defects found in Children not attending for the first time.	
	Under 1 year	1 year and over	Under 1 year	1 year and over
Number examined:—				
Normal	1,140	86	...	...
Individual cases found with Diseases or Defects ...	817	311	...	...
Diseases or Defects found:—				
Injury at Birth	10	...	...	...
Congenital Malformation or Defect	116	10	34	22
Prematurity	43	...	2	...
Congenital Debility	27	2	5	1
Malnutrition (cause not specified) or Debility (not congenital)	10	26	105	43
Anaemia (cause not specified)	15	4	15	33
Diseases or Defects of :—				
Skin (Non-syphilitic):				
Systemic	69	13	180	100
Contagious	25	17	75	103
Irritative	68	13	255	85
Eye: Ophthalmia Neonatorum	23	...	9	2
Squint	1	27	6	42
Other	21	8	63	56
Ear: Otorrhoea	11	14	73	46
Other	1	3	23	15
Nose and Throat:				
Enlarged Tonsils and/or Adenoids ...	1	28	25	111
Other	9	10	58	51
Heart and Circulation: Congenital	3	2	1	...
Rheumatic ... ..	...	1	1	2
Other	2	...	4	3
Respiratory System (non-tuberculous)	60	26	483	191
Digestive System: Hernia—Umbilical	91	4	65	5
Other	15	3	32	21
Other Diseases	221	20	981	194
Nervous System: Chorea	2	1	...	2
Other	35	4	18	25
Genito-urinary System: Phimosis	79	6	37	26
Other	8	5	27	24
Tuberculosis: Pulmonary—				
Definite ... ..	...	...	...	...
Suspected	1	...	...	...
Non-Pulmonary	2	3	3	10
Defective Teeth	10	71	8	264
Rickets	7	23	43	70
Other Deformities	3	14	22	52
Rheumatism (not Cardiac or Nervous)	3	1	1	3
Syphilis	25	...	1	...
Other Diseases or Defects	74	19	70	104

Ante-natal Consultations.—The record of attendances at the 3 ante-natal clinics is given in the following statement:—

Number of Sessions	ATTENDANCES					Average Attendance at each Session
	Expectant Mothers		Post-natal cases		Total	
	First	Subsequent	First	Subsequent		
236	1,466	4,485	94	31	6,076	26

Of the women who attended the consultations for the first time during the year, 57 were found not pregnant, and in 13 instances miscarriages occurred (2 primiparae and 11 multiparae). Still-births occurred in 6 of the cases.

An analysis of new cases (definitely pregnant) attending the clinics and who were confined during 1932 is given below.

Type of case:—

Primiparae	...	...	...	...	416
Multiparae	...	...	...	...	870
Total					1,286

Of these 1,286 cases, 708 were found to be suffering from 972 diseases, abnormalities or defects, as follows:—

as follows:				
Abnormalities of the thyroid gland	...	...	...	15
Albuminuria	...	...	...	62
Anaemia	...	...	...	14
Chorea	...	...	...	3
Conditions requiring caesarean section	...	...	...	4
,, ,, induction	...	...	...	4
,, ,, version	...	...	...	44
Contracted pelvis	...	...	...	99
Cystitis	...	...	...	1
Debility	...	...	...	11
Dental defects requiring treatment	...	...	...	401
Epilepsy	...	...	...	1
Foetal abnormality	...	...	...	7
Haemorrhage	...	...	...	35
Haemorrhoids	...	...	...	2
Heart conditions	...	...	...	8
Hydrometra	...	...	...	9
Oedema	...	...	...	47
Pyelitis	...	...	...	2
Respiratory diseases	...	...	...	3
Skin diseases	...	...	...	9
Vaginal discharge	...	...	...	125
Varicose veins	...	...	...	65
Other diseases	...	...	...	2
Total				972

Place of confinement:—

Private dwelling houses	...	...	...	720
Maternity Hospital (Cardiff Royal Infirmary)	...	...	...	444
City Lodge Hospital	...	...	...	59
Private Maternity Homes	...	...	...	11
Outside Cardiff	...	...	...	39
Not traced	...	...	...	13
Total				1,286

Since June, 1925, pregnant women attending the ante-natal clinics have been subjected to a blood examination for syphilis, viz., the Wassermann reaction. During 1932 such routine tests were made in 945 cases, of whom 20, or 2.1 per cent., were found to be positive.

Maternity Hospital.—The number of expectant mothers in necessitous circumstances, or suffering from abnormalities of pregnancy, and emergency cases admitted to the Maternity Hospital (Cardiff Royal Infirmary) were as follows:—

Complicated cases sent by General Practitioners ...	...	35
Cases admitted through Ante-natal Clinics ...	...	389
Total ...	...	424

Maternity and Nursing Homes.—At 31st December, 1932, there were 21 registered nursing homes, 11 providing for maternity cases only, 6 providing for surgical and/or medical cases only and 4 providing for both maternity and other cases. The total number of beds in the registered nursing homes was 144, of which 58 were available for maternity cases. Two homes for which application for registration was made during 1932 were duly registered after careful inspection and remedy of defects.

Extra-Domiciliary Confinement.—The number and proportion of births belonging to Cardiff and registered in Cardiff as having occurred away from private dwelling-houses during 1932 are given below:—

Place of Birth	Number	Number per 1,000 Births
Cardiff Royal Infirmary ...	403	115
City Lodge Hospital ...	131	37
Private Nursing and/or Maternity Homes	174	50
Totals ...	708	202

Dental Clinic.—The following is a record of the year's work:—

	Mothers	Children	Totals
Inspected ...	319	294	613
Treated ...	312	281	593
Attendances:—			
For inspection ...	343	294	637
For treatment ...	1,576	315	1,891
Teeth extracted ...	4,126	982	5,108
Teeth filled ...	29	15	44
Dressings ...	38	3	41
Scalings ...	37	...	37
Anaesthetics administered:—			
General ...	572	295	867
Local ...	70	...	70
Supplied with dentures ...	196	...	196
Dentures supplied:—			
Full upper ...	192	...	192
Partial upper ...	4	...	4
Full lower ...	174	...	174
Partial lower ...	3	...	3

Domiciliary Visits by Health Visitors.—The following is a summary of the visits by the health visitors in connection with maternity and child welfare:—

Births—First visits	...	...	...	...	3,170
Subsequent visits	...	{	Infants under one year	...	5,946
	...		Children over one year	...	7,863
Births and infant deaths—Combined visits	...		...	...	84
Infant death investigations	...		...	...	139
Still-birth investigations	...		...	...	163
Ante-natal cases	...	{	First visits	...	311
	...		Re-visits	...	90
Post-natal cases	...	{	First visits	...	1,205
	...		Re-visits	...	18
Communicable Diseases:—					
Ophthalmia Neonatorum	{	First visits	...	...	34
		Re-visits	...	...	56
Puerperal Fever	{	First visits	...	...	2
		Re-visits	...	...	—
Measles	{	First visits	...	...	370
		Re-visits	...	...	26
Whooping Cough	{	First visits	...	...	365
		Re-visits	...	...	12
Mumps	{	First visits	...	...	720
		Re-visits	...	...	4
Financial inquiries	...		...	...	850
Other visits	...		...	...	4,045
Total					25,473

The homes of children between 1 and 5 years are visited as frequently as possible, but the visits fall short of the number that should be made, viz., at least two visits in each case per annum, owing to the inadequacy of the staff provided for the purpose. The time of the health visitors is taken up so much with work at the ante-natal clinics and child welfare centres that it is impossible to undertake all the visiting that is desirable.

Supply of Free Milk.—Milk was supplied free of charge in necessitous cases and on medical certificates to the following extent:—

	Fresh Milk— Grade A (T.T.)		Dried Milk	
	Applications for a month's supply	Pints Granted	Applications for a month's supply	Pounds Granted
Children	1,414	42,520	370	3,460
Expectant Mothers	347	10,450	...	...
Nursing Mothers	621	18,663	...	...
Totals	2,382	71,633	370	3,460

Training of Midwives.—The arrangements made by the City Council whereby not more than eight free studentships in theoretical training at the Welsh National School of Medicine are awarded annually have been continued, but the number of candidates seeking the training is small. Only three free studentships were awarded during the year. Mainly owing to the fact that there is no shortage of midwives in Cardiff, the Council have decided to discontinue the arrangements for granting free scholarships in practical training.

Midwives Practising in Cardiff.—The number of midwives practising in Cardiff at the end of the year was 122. They may be classified as follows:—

According to qualifications:—

<i>Bona fide</i>	11
Certificate of Central Midwives Board	111
<hr/>	
Total	122
<hr/>	

According to type of practice:—

Attached to public institutions	34
Conducting private nursing or maternity homes	11
Dealing with less than five cases per annum	16
Monthly nurses	8
Others	53
<hr/>	
Total	122
<hr/>	

Officers of the Department made 185 visits of inspection of midwives, and midwives' appliances, etc., were disinfected in 18 instances.

The following is a record of the practice of midwives in Cardiff during the year in relation to the births which were the subject of visits by the health visitors:—

Attendances at births by midwives* as ascertained by health visitors:—

(a) Alone	1,453
(b) With a medical practitioner:—	
(i) Medical practitioner engaged	616
(ii) Medical practitioner called in emergency	659

Attendances at still-births by midwives*:—

(a) Alone	32
(b) With a medical practitioner:—	
(i) Medical practitioner engaged	39
(ii) Medical practitioner called in emergency	56

Medical Practitioners called in by Midwives in Emergency.—During the year the number of instances in which medical practitioners were called in by midwives in emergency was 1,139, and claims for emergency fees were made by practitioners in 847 cases. The fees claimed totalled £1,313 7s. 0d. and in 134 instances fees amounting to £170 7s. 7d. were reclaimed from patients. The sum actually recovered during the year was £113 9s. 8d. (including sums reclaimed in 1931). The proportion recovered of the amount paid to practitioners was 8·6 per cent.

*Other than those engaged in midwifery at the Cardiff Royal Infirmary and the City Lodge Hospital.

The following statement gives the reasons for medical help being summoned by midwives:—

(1) MOTHER.—

(a) *Pregnancy*—

Miscarriage (including abortion)	85
Haemorrhage	20
Albuminuria and oedema and other toxic causes ...	37
Other causes	33
	— 175

(b) *Labour*—

Abnormal presentation	52
Premature labour	29
Obstructed and delayed labour	360
Placenta praevia, ante-partum haemorrhage and eclampsia, and other toxic causes	68
Post-partum haemorrhage and retained and adherent placenta	38
Ruptured perineum	124
Other causes	20
	— 691

(c) *Lying-in*—

Pyrexia, secondary post-partum haemorrhage and phlegmasia and other septic causes	52
Other causes	44
	— 96

(2) INFANT.—

Debility	37
Inflammation of or discharge from eyes	84
Other causes	56
	— 177

Total 1,139

Puerperal Fever and Puerperal Pyrexia.—Statistics as to the number of cases of puerperal fever and puerperal pyrexia notified during the year under the Public Health (Notification of Puerperal Fever and Puerperal Pyrexia) Regulations, 1926, are given in the section dealing with communicable diseases and in the statistical tables (Appendix I), but as the work involved comes within the province of maternity and child welfare it is referred to here. Thirty-two cases of puerperal fever and 52 cases of puerperal pyrexia were notified, 11 of the former and 3 of the latter being removed to the Isolation Hospital for treatment. General practitioners sought the assistance of the Department in several cases, and a specialist consultation took place in one instance.

Home Nursing.—The following is a record of the work done by the Queen's Institute of District Nursing for the maternity and child welfare section of the Department:—

Disease or Defect	Cases carried over from 1931		Cases referred for Treatment during 1932		Totals	
	Cases	Visits	Cases	Visits	Cases	Visits
Skin:—Impetigo	3	51	15	514	18	565
Other Skin Diseases	2	13	10	213	12	226
Eye:—Ophthalmia Neonatorum	2	37	16	356	18	393
Other Eye Defects	2	56	46	398	48	454
Minor Ear Defects ... ..	...	...	26	458	26	458
Miscellaneous	1	11	93	1,269	94	1,280
Totals	10	168	206	3,208	216	3,376

Maternity Bags.—Maternity bags were lent by the Department in 18 necessitous cases.

Home Helps.—Home Helps were provided by the Department in 133 cases in which mothers confined at home were without adequate domestic help and without means of obtaining it.

Crippling Defects and Orthopaedics.—A report on the work under the orthopaedic scheme is included in the report on the school medical service (page 129), and only such records regarding children under school age not included there are dealt with in this part of the report. The clinic and the facilities for treatment and the provision of appliances exist both for school children and for children under school age.

The following is a summary of the work carried out at the orthopaedic clinic during 1932:—

				<i>Children under School Age.</i>
<i>Consultation Clinic:—</i>				
Examined for first time	...	...	...	126
Recommended for treatment for first time	...	...	...	100
Previously treated, recommended for additional treatment	...	...	...	83
<i>Recommendations for:—</i>				
Treatment in Hospital	...	...	...	16
Treatment at Clinic (Special and Routine)	...	...	...	76
Appliances	...	...	...	31
Alterations to appliances	...	...	...	1
Special boots	...	...	...	6
Alterations to boots	...	...	...	68
Other forms of treatment	...	...	...	8
Treated at Clinic for first time	...	...	...	59
Attendances at Clinic	...	...	...	487
<i>Routine Treatment (massage, electricity, exercises, etc.):—</i>				
Treated at Clinic for first time	...	...	...	55
Attendances for routine treatment	...	...	...	1,173

The following statement relates to treatment at and provision of appliances, etc., through the Prince of Wales' Hospital, Cardiff, during 1932:—

				<i>Children under School Age.</i>
<i>Hospital Treatment:—</i>				
Admitted to Prince of Wales' Hospital—				
(a) Day cases	...	...	...	—
(b) Other cases	...	...	...	12
Under treatment at Prince of Wales' Hospital at end of 1932	...	...	...	4
On Prince of Wales' Hospital waiting list at end of 1932:—				
(a) Day cases	...	...	...	—
(b) Other cases	...	...	...	2
<i>Other treatment or provision (including appliances, etc., provided following hospital treatment):—</i>				
Appliances provided	...	...	...	28
Appliances altered	...	...	...	2
Special boots provided	...	...	...	1
Alterations to boots	...	...	...	31
Other forms of treatment provided	...	...	...	5

Nose and Throat Defects.—The following is a summary of the work done in connection with the treatment of children under school age suffering from enlarged tonsils and/or adenoids:—

Examined for first time	...	...	...	...	155
(a) Recommended for operative treatment	...	...	...	...	34
(b) Recommended for other forms of treatment	...	...	...	...	32
(c) Found to be normal	...	...	...	...	17
(d) Recommended for re-examination	...	...	...	...	72
Received operative treatment	...	...	...	...	43
Received other forms of treatment	...	...	...	...	45
Total attendances	...	...	...	...	299

Visual Defects.—The following statement summarises the work done in connection with the examination of visual defects in children under school age:—

Attended for first time...	...	...	...	...	94
Requiring examination for errors of refraction:—					
(a) Examination for errors of refraction completed	...	...	...	...	47
(b) For whom spectacles were prescribed	...	...	...	...	43
For whom spectacles were provided:—					
(a) By parents	...	...	...	...	33
(b) By Council free of charge	...	...	...	...	3
Requiring examination for other eye defects:—					
(a) For whom treatment was prescribed	...	...	...	...	24
(b) For whom treatment was provided	...	...	...	...	13
Found to be normal	...	...	...	...	5
Total attendances	...	...	...	...	200

Measles.—The hospital treatment of cases of measles under five years of age is undertaken as part of the maternity and child welfare scheme of the Council. Particulars as to the cases admitted to hospital during 1932 are contained in the report on the Isolation Hospital (page 18).

Venereal Diseases.—Tabular statements relating to the work of the auxiliary treatment centre for mothers and children are included in the section dealing with venereal diseases (page 39).

Radiography.—The X-ray apparatus is used for radiography for both maternity and child welfare and school medical service cases, and a record of the work done during 1932 is contained in the report on the school medical service (page 127), from which it will be seen that 232 individual cases chargeable to maternity and child welfare were dealt with, as compared with 149 in 1931.

Artificial Sunlight Treatment.—The number of children treated by artificial sunlight for the first time during the year and their ailments are shown in the following table:—

	<i>Diseases.</i>					<i>Children.</i>
Bronchial Catarrh	3
Bronchitis	2
Chronic Dermatitis	1
Cretinism	1
Debility	6
Debility and Anaemia	1
Impetigo	1
Malnutrition	3
Malnutrition and Anaemia	1
Malnutrition and Debility	3
Nervous Debility	1
Retarded Mental Development	1
Rickets	36
Total	60

The total number of attendances for treatment was 774.

Note by Dr. Nancy K. Gibbs on the Treatment of Children by Artificial Sunlight.

The usual routine was followed. Many cases treated were active rickets. The period needed for healing varies greatly with the age of the child and the season of the year. A child treated during the winter takes about twice as long as a child of the same age treated during the summer. Fortunately, most cases of rickets are sent for treatment between March and June, and very few during the actual winter months. This fits in with Dr. Helen Mackay's findings, that in London, in September, it is exceptional to find a case of *active* rickets, whether the child has received treatment or not. These rachitic children show benefit very quickly and take increased doses regularly.

The cases of malnutrition are a contrast to the above. Admittedly, the causes are many and not always easy to ascertain. Few gain steadily during treatment and the doses have to be very carefully graduated or there is a tendency to lose weight.

The bronchial catarrhs, some of which may be asthmatic in origin, appear to be freer from attacks during treatment and for some months after, but several have recurred in the following winter.

Increased physical and mental activity continue to be apparent early in treatment.

There is little well-marked pigmentation seen in these young children.

Thirty-four expectant mothers were treated for the first time during 1932, the total number of attendances for treatment being 306.

Note by Dr. Nancy K. Gibbs on the Treatment of Expectant Mothers by Artificial Sunlight.

The general routine of the clinic in regard to dosage and so on was the same as in the previous year.

General pigmentation of the trunk and especially of the exposed parts of the body was well marked. Out of the total number of expectant mothers treated, 27 were cases of excessive vomiting; this means vomiting constantly throughout the day and in some cases at night as well.

Of these 27 cases:—

2	were	2	months pregnant
6	„	over 3	„ „
6	„ „	4	„ „
2	„ „	5	„ „
6	„ „	6	„ „
5	„ „	7	„ „

As a rule, an expectant mother is not recommended for sunlight treatment until after three months have elapsed, unless the condition is particularly severe. This period usually coincides with the cessation of morning vomiting, which is regarded as a minor disability. In the above list two such cases appear. One of these women had had five previous pregnancies with nothing but "morning sickness"; after her third irradiation she stated that she was only sick after tea. The other early case also said, after her third treatment, that she was only sick after tea; after her next treatment she said she was not sick at all, and this continued, except for a short period in the following week, throughout her eight weeks' attendance.

Without exception, the irradiated patients complained less and less of vomiting. In a few cases it did not stop entirely but happened occasionally only and appeared to be associated with the consumption of some unusual article of food.

The other patients treated were cases of debility. These appeared to benefit by treatment.

The babies of irradiated mothers are being followed up. It is proposed to examine them for the first time at approximately six months old, and from then at about six-monthly intervals. Up to date, six of the 1932 cases have been seen; all were healthy except two who showed minor skin trouble.

Of the mothers who received treatment during 1931, 19 babies were seen—seven on two occasions. Five were found to show mild clinical rickets, of whom, three showed only early signs, viz., enlargement of the epiphyses at the costochondral junctions and delayed closure of the fontanelle. The other two were older and showed additional signs, one showing marked bowing at the tibia. Three of these children had been fed on condensed sweetened milk for several months. Two other children were below average weight and general condition. In both these cases breast feeding had failed early and various dried milks had been given. One child, who had fairly severe eczema, was fed on condensed sweetened milk. The remaining 11 children were all healthy. Seven had been entirely breast-fed for eight or ten months; the remaining four had been breast-fed for a few weeks and then given a dried milk and later cows' milk. A marked feature of the examination of these babies was the superiority of those who were breast-fed.

Infant Life Protection.—The following statement gives particulars of the numbers of persons and children registered as at 31st December, 1932, and applications for registration and visits by the visitor specially engaged in this work during 1932:—

Persons registered as keeping children for reward as at 31st	
December, 1932	59
Children registered as being kept for reward as at 31st	
December, 1932	65
Applications for registration—	
(a) Persons registered for first time	10
(b) Changes of address	14
First visits	23
Routine visits	681
Special visits:—	
(a) Illegitimate infants	11
(b) Others	147

Adoption of Children Act, 1926.—The Council act as guardian *ad litem* in certain cases under the Adoption of Children Act. The visitor specially engaged in duties connected with infant protection, who undertakes the necessary investigations, dealt with 12 cases during 1932.

XI.—LABORATORY WORK.

Cardiff and County Public Health Laboratory.—The numbers of specimens and samples examined during 1932 for Cardiff (City and Port) were as follows:

Bacteriological Examinations:—

Water Supplies	...	...	...	...	312
Milks for Tubercle Bacilli	...	...	...	...	275
Milks for General Examination	...	...	...	...	804
Ice Cream for General Examination	...	...	...	...	72
Sputa for Tubercle Bacilli	...	...	...	...	1,032
Urine for Tubercle Bacilli	...	...	...	...	15
Rodents for Plague	...	...	...	...	358

Specimens for:—

Diphtheria	...	...	...	...	2,775
Enteric Fever (Serum)	...	...	...	...	86
Enteric Fever (Other Specimens)	...	...	...	...	33
Malaria	...	...	...	...	6
Gonorrhoea	...	...	...	...	562
Syphilis (Wassermann Reaction)	...	...	...	...	2,712
Syphilis (Spirochaeta Pallida)	...	...	...	...	9
Ringworm	...	...	...	...	9
Cerebro-spinal Fluids	...	...	...	...	50
Other Examinations	...	...	...	...	224

Chemical Examinations:—

Water Supplies	...	...	...	...	267
Milk and Milk Products	...	...	...	...	163
Ice Cream	...	...	...	...	72
Air of Cinemas	...	...	...	...	15
In connection with Atmospheric Pollution	...	...	...	...	52
In connection with Ultra-Violet Radiation	384
Other Examinations	15

Total	10,302
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The numbers of specimens examined for suspected disease in patients resident in Cardiff, together with the results, are shown below:—

Suspected Disease	Positive Results	Negative Results	Totals	Percentage of Positive Results
Diphtheria	393	2,382	2,775	14.2
Enteric Fever	11	108	119	9.2
Tuberculosis	247	800	1,047	23.6
Gonorrhoea	47	515	562	8.4
Syphilis—				
Wassermann Reaction	372	2,340	2,712	13.7
Spirochaeta Pallida	1	8	9	11.1

XII.—HOUSING.

The following is a statement in the form required by the Ministry of Health in relation to housing:—

1. *Inspection of Dwelling-houses during the Year:—*

(1) (a) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	7,495
(b) Number of inspections made for the purpose	14,253
(2) (a) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925... ..	1,299
(b) Number of inspections made for the purpose	2,470
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	—
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation	2,697

2. *Remedy of Defects during the Year without Service of formal Notices:—*

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers... ..	2,947
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3. *Action under Statutory Powers during the Year:—*

(a).—Proceedings under Sections 17, 18 and 23 of the Housing Act, 1930:

(1) Number of dwelling-houses in respect of which notices were served requiring repairs	46
(2) Number of dwelling-houses which were rendered fit after service of formal notices:—	
(a) By owners	44
(b) By local authority in default of owners	2

(b).—Proceedings under Public Health Acts:

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	263
(2) Number of dwelling-houses in which defects were remedied after service of formal notices:—	
(a) By owners	292
(b) By local authority in default of owners	—

(c).—Proceedings under Sections 19 and 21 of the Housing Act, 1930:

(1) Number of dwelling-houses in respect of which Demolition Orders were made	—
(2) Number of dwelling-houses demolished in pursuance of Demolition Orders	—

(d).—Proceedings under Section 20 of the Housing Act, 1930:

(1) Number of separate tenements or underground rooms in respect of which Closing Orders were made	—
(2) Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit	—

(e).—Proceedings under Section 3 of the Housing Act, 1925:

(1) Number of dwelling-houses in respect of which notices were served requiring repairs	—
--	---

- (2) Number of dwelling-houses which were rendered fit after service of formal notices:—
- (a) By owners —
- (b) By local authority in default of owners —
- (3) Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close —
- (f).—Proceedings under Sections 11, 14 and 15 of the Housing Act, 1925:
- (1) Number of dwelling-houses in respect of which Closing Orders were made —
- (2) Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit —
- (3) Number of dwelling-houses in respect of which Demolition Orders were made —
- (4) Number of dwelling-houses demolished in pursuance of Demolition Orders —

House Inspection.—The results of all recorded house inspections during the year have been summarised in the following statement, with the object of showing the various conditions found to exist in working-class property.

Structurally separate dwellings inspected and recorded	...	1,299
Number overcrowded as measured by:—		
Air-space standard*	...	34
Undesirable intermingling of sexes†	...	21
Registrar-General's standard‡	...	90
Number with:—		
One family	...	957
Two families	...	299
Three families	...	34
More than three families	...	9
Without through ventilation	...	3
Without satisfactory washing accommodation	...	143
Without satisfactory cooking arrangements	...	8
Without proper food pantries	...	964
Without troughs	...	323
Dampness from:—		
Defective roofs, shutters or downpipes	...	323
Defective outside plastering or joints	...	168
Lack of, or defective, damp-proof courses	...	57
With earth or pail closets	...	2
Drained to cesspools	...	—
Without flushing cisterns	...	932
With flushing cisterns out of repair	...	30
Without covered galvanised iron ash-bins	...	1,198
Found to be not reasonably fit for human habitation	...	306
Found to be unfit for human habitation	...	2

* At least 300 c. ft. per adult and 150 c. ft. per child under 10 years of age in bedrooms.

† Where two or more persons of the opposite sex, each over 13 years of age, excluding married couples, occupy the same room for sleeping purposes.

‡ More than two persons per room. Both living and sleeping rooms are included in the total number of rooms, and all children are counted as adults.

Multiple Tenancy.—For comparison with the inquiries made in previous years, the following summary is given of the living conditions of families coming under the observation of the Department in relation to multiple tenancy:—

<i>Source of Information.</i>	<i>Number of Houses.</i>	<i>Percentage occupied by more than One Family.</i>
Birth Records	3,343	54·0
Tuberculosis Records	399	38·3
Housing Records	1,299	26·3

Housing Act, 1930.—No action was taken during the year in regard to the condemnation of unfit houses. The number of houses repaired under Section 17 of the Act was 628, and of these, 582 were dealt with by informal notices, 44 by formal notices and 2 by the City Council in default of the owners.

Corporation Housing Estates.—The sanitary supervision of these estates has been extended, the sanitary inspectors reporting on the sanitary condition of each vacant house, in addition to the presence or absence of vermin. In regard to applicants for Council houses, the Housing Committee now refer all cases to the Department for investigation of the living conditions of each applicant and report on his suitability as a tenant. Reports are also submitted in respect of applicants who should be granted preferential consideration on public health grounds. The table given below gives particulars of the work carried out by the Department in connection with the housing estates. It will be seen that the control exercised over prospective tenants has resulted in a considerable reduction in the percentage of vacant houses found verminous during the past three years.

<i>Year</i>	<i>Vacant Houses inspected</i>	<i>Vacant Houses found to be verminous</i>	<i>Percentage found verminous</i>	<i>Houses reported verminous by City Treasurer and Controller's Dept.</i>	<i>Investigations into home conditions of applicants</i>	<i>Miscellaneous inspections</i>
1930	321	98	30·5	95	344	53
1931	347	93	26·8	40	312	42
1932	419	91	21·7	41	411	65

Houses-Let-in-Lodgings.—As the result of the operation of the new byelaws (see Annual Report for 1931), 25 houses have been provided with adequate water supply, food storage arrangements, cooking arrangements, washing-up arrangements, etc., for the various families in each house. Many houses coming within this category are structurally unsuitable for occupation by more than one family, and in others the total accommodation occupied by each family does not exceed two rooms. Under these circumstances it is impossible to provide the various amenities for each family, but the difficulty has been overcome by installing communal water supply arrangements and washing-up sinks on the staircase landings. Another difficulty encountered is the extraordinary migratory habits of the occupants of this type of house. On several occasions, shortly after the landlord has gone to the expense of installing various conveniences, all the families have left and the house has been used for a different purpose, rendering the expenditure unnecessary.

XIII.—FOOD INSPECTION.

Meat Inspection at Municipal Abattoirs.—The following tables set out in detail the work done in connection with meat inspection during the year.

Animals slaughtered and whole carcasses found diseased which were surrendered and destroyed or otherwise dealt with by arrangement with the owners:—

	ROATH ABATTOIR		CANTON ABATTOIR		TOTALS	
	Slaughtered	Diseased or unsound and destroyed	Slaughtered	Diseased or unsound and destroyed	Slaughtered	Diseased or unsound and destroyed
Bulls	104	1	38	—	142	1
Cows	488	22	264	10	752	32
Heifers	2,129	7	435	1	2,564	8
Steers	1,691	3	159	—	1,850	3
Calves	7,323	25	560	2	7,883	27
Sheep and Lambs	33,583	85	13,669	93	47,252	178
Pigs	27,625	184	6,553	35	34,178	219
Totals	72,943	327	21,678	141	94,621	468

Instances in which tuberculosis was found:—

	ROATH ABATTOIR		CANTON ABATTOIR		TOTALS	
	Number	Percentage	Number	Percentage	Number	Percentage
Cattle:—						
Bulls	15	14.42	4	10.52	19	13.38
Cows	148	30.32	96	36.36	244	32.44
Heifers	69	3.24	10	2.30	79	3.08
Steers	63	3.72	18	11.32	81	4.38
Calves	26	0.35	11	1.96	37	0.46
All Cattle	321	2.73	139	9.55	460	3.48
Pigs	394	1.42	100	1.52	494	1.44

Causes of destruction of carcasses:—

Cause	Beef	Veal	Mutton and Lamb	Pork	Totals
Tuberculosis	39	17	...	173	229
Dropsy ... ..	...	...	106	3	109
Emaciation	1	2	23	5	31
Dropsy and Emaciation ... ..	...	...	32	...	32
Johne's Disease	1	...	...	...	1
Moribund ... ..	...	1	3	...	4
Found dead ... ..	...	...	...	...	...
Decomposition ... ..	...	...	...	...	...
Other Causes	3	7	14	38	62
Totals	44	27	178	219	468

Approximate weight of diseased or unsound meat surrendered and destroyed or otherwise dealt with by arrangement with the owners:—

Carcases of—				Tons	cwt.	lb.
Beef	...	...	...	11	1	73
Veal	...	...	...	1	2	81
Mutton and Lamb	...	...	...	2	13	63
Pork	...	...	...	9	3	62
Part carcases of—						
Beef	...	...	...	1	1	48
Veal	...	...	...	—	—	9
Mutton and Lamb	...	...	...	—	—	81
Pork	...	...	...	1	11	88
Offal of—						
Beasts	...	...	...	19	1	30
Calves	...	...	...	—	7	12
Sheep and Lambs	...	...	...	7	9	58
Pigs	...	...	...	4	10	22
Total	...	...	...	58	3	67

Meat Inspection at Private Slaughter-houses.—The numbers of animals slaughtered were as follows:—

Sheep and Lambs	...	...	...	...	264
Pigs	...	...	...	...	1,568
Total	...	...	...	...	1,832

Tuberculosis was found in carcasses of pork in 46 instances, the proportion being 2.93 per cent. Twelve unsound carcasses of pork were destroyed, the cause in each instance being tuberculosis. One carcase of mutton (moribund) was also destroyed.

The total weight of unsound meat surrendered at private slaughter-houses and destroyed by arrangement with the owners was 1 ton 12 cwt. 97 lb.

Caseous Lymphadenitis.—In view of the decrease in the number of imported carcasses of mutton and lamb showing evidence of caseous lymphadenitis lesions, the Ministry of Health decided in 1932 that in future only a 5 per cent. sample of consignments on arrival in port sanitary districts need be examined. It was also decided that the system of notifying Medical Officers of Health of the districts of destination of consignments of imported mutton and lamb should be discontinued.

Unsound Food Exposed or Intended for Sale.—The following is a record of the work done by the sanitary inspectors in connection with inspection of food exposed or intended for sale during the year:—

	Number of Inspections.	
Butchers' shops...	...	3,390
Provision shops	...	276
Markets	...	374
Wholesale stores	...	1,208
Fish and fruit shops	...	702
Butter factories	...	132
Margarine stores (wholesale)	...	107
Ice cream premises and barrows	...	771
Fried fish shops	...	399
Food vehicles	...	96
Railway stations	...	22
Restaurants	...	244
Other premises	...	223
Total	...	7,944

Approximate weight of diseased or unsound food found in shops and stores and destroyed or disposed of by the owners otherwise than as food for human consumption:—

	Tons	cwt.	lb.
Beef	—	8	99
Mutton and lamb	—	12	48
Pork	—	2	87
Fish	—	18	96
Poultry	—	1	58
Ham and bacon... ..	—	—	49
Other provisions	5	—	19
Fruit	—	1	48
Offal	5	9	102
Vegetables	2	5	10
Total	15	1	56

Meat Hawkers.—Under Section 108 of the Cardiff Corporation Act, 1930, any person not keeping a butcher's shop in the city who desires to sell meat or meat food products from a vehicle, basket or barrow must obtain a certificate annually from the City Council approving of the storage accommodation for such products. During the year, 17 such certificates were granted.

Milk Inspection.—The following is a statement showing the distribution of the milk business in Cardiff and the amount of milk sold per day in June, 1932:—

Character of Business	Number of Vendors	
	Totals	Selling 6 gallons or less per day
(1) From retail premises other than shops, with or without rounds	48	5
(2) By rounds direct from farms within the city boundary	16	...
(3) By rounds direct from farms or premises beyond the city boundary	97	9
(4) From shops (not entirely bottled milk) with or without rounds	106	73
(5) From shops (bottled milk only)	348	346
(6) By rounds only	149	7
(7) Under the Milk (Special Designations) Order, 1923:—		
Grade A	7	5
Grade A (T.T.)	50	21
Certified	2	1
Totals	823	467

The approximate number of gallons of milk sold per day by all vendors was 11,045, an increase of 510 gallons over the quantity sold per day in June, 1931. Included in the total quantity sold per day in June, 1932, were 124 gallons of Grade A, 550 gallons of Grade A (T.T.) and 26 gallons of Certified milk.

Veterinary Inspection of Cows.—The following are particulars of the inspection of cows carried out by Mr. P. J. Mullane, Veterinary Inspector:—

		<i>Cowsheds in City.</i>	<i>Cowsheds beyond City Boundary.</i>
Dairymen whose premises were visited	27	...	3
Visits to such premises ...	295	...	3
Cows in milk examined ...	326	...	86
Examinations of cows ...	3,378	...	86
Cows found diseased ...	7	...	31
Cows excluded from dairy herds at time of inspection ...	2	...	—
Cows not in milk examined ...	69	...	23
Examinations of cows ...	603	...	23
Cows found diseased ...	—	...	1

Condition of cows examined:—

	Cowsheds in City		Cowsheds beyond City Boundary	
	Cows in Milk	Cows not in Milk	Cows in Milk	Cows not in Milk
Suffering from:—				
Tuberculosis of Udder ...	...	...	...	...
Other Forms of Tuberculosis ...	1	...	...	...
Acute Inflammation of Udder ...	1	...	1	...
Other Chronic Diseases of Udder ...	5	...	28	1
Other Diseases ...	...	...	2	...
Healthy ...	319	69	55	22
Totals ...	326	69	86	23

Tubercle Bacilli in Milk.—The number of routine samples of milk examined for the presence of tubercle bacilli was 216, of which 9, or 4·1 per cent., were found to be positive. The percentage of samples in which tubercle bacilli were found during the ten years 1922-31 was 4·9. The milk was produced outside Cardiff in 7 of the cases in which tubercle bacilli were found during 1932, and the prescribed action under Section 4 of the Milk and Dairies (Consolidation) Act, 1915, was taken in each case.

Routine Bacteriological Examination of Milk.—The following is a record of the bacteriological examination of ordinary commercial milk carried out during 1932, the results being shown in such a way as to reveal the proportion which attained the standard prescribed by the Milk (Special Designations) Order, 1923, for Grade A milk:—

Period	Number of Samples examined	Number containing not more than 200,000 bacteria in 1 c.c.	Number with <i>B. Coli</i> absent in 1/100 c.c.	Number attaining Grade A standard by both tests	Percentage attaining Grade A standard
January—May ...	146	111	121	100	75
June—August ...	91	49	47	39	43
September— December ...	95	86	72	67	70
Totals ...	332	246	240	206	62

Graded Milks.—The following is a statement of the number of licences for the various grades of milk and the number of individual dealers under the Milk (Special Designations) Order, 1923, each year since 1923:—

Description	Number on 31st December									
	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
(1) Producers' licences to use the designation "Grade A" ... ..	...	1	1	1	1	1	1	1	4	2
(2) Dealers' licences to use the designation "Certified" ... ..	...	...	...	2	...	2	2	4	2	2
(3) Dealers' licences to use the designation "Grade A (Tuberculin Tested)"—										
(a) Bottling establishments ... ..	...	...	...	3	5	17	21	24	24	23
(b) Shops ... ..	...	...	...	...	...	17	25	26	25	28
(c) Supplementary ... ..	...	...	...	...	1	1	1	1	1	6
(4) Dealers' licences to use the designation "Grade A"—										
(a) Bottling establishments ... ..	...	3	3	6	9	2	2	...	3	3
(b) Shops ... ..	...	...	...	2	8	2	...	...	...	...
(c) Supplementary ... ..	...	2	2	2	1	1	3	3	3	3
(5) Dealers' licences to use the designation "Pasteurised"—										
(a) Pasteurising establishments ... ..	...	1	1	1	...	...	...	...	...	2
(b) Shops ... ..	...	...	...	...	...	...	...	...	...	...
(6) Individual dealers—										
(a) Licensed to use the designation "Certified" ... ..	...	...	...	2	...	2	2	4	2	2
(b) Licensed to use the designation "Grade A (Tuberculin Tested)" ... ..	...	...	...	3	5	34	45	50	49	51
(c) Licensed to use the designation "Grade A"	3	5	8	9	18	5	5	3	6	4

The following tables show the proportion of samples of Grade A and Grade A (Tuberculin Tested) milk which conformed with the standard laid down by the Order. In every instance of a sample being below standard steps were taken to ascertain the cause and to remedy the defect.

(a) Samples from Producers' Supplies (before bottling).

Period	Number of Samples examined	Number containing not more than 200,000 bacteria in 1 c.c.	Number with <i>B. Coli</i> absent in 1/100 c.c.	Number attaining Grade A standard by both tests	Percentage attaining Grade A standard
January—May ...	12	9	10	8	67
June—August ...	6	5	3	3	50
September—December ...	14	13	12	12	86
Totals ...	32	27	25	23	72

(b) Samples from Dealers' Supplies (after bottling).

Period	Number of Samples examined	Number containing not more than 200,000 bacteria in 1 c.c.	Number with <i>B. Coli</i> absent in 1/100 c.c.	Number attaining Grade A standard by both tests	Percentage attaining Grade A standard
January—May ...	156	146	150	144	92
June—August ...	93	78	79	71	76
September—December ...	125	119	115	113	90
Totals ...	374	343	344	328	88

In addition, 11 samples of Certified milk were examined, one of which was reported to be below the prescribed standard.

Ice Cream.—Seventy-two samples of ice cream were submitted for bacteriological and chemical examination, the results of which were as follows:—

Number of Bacteria per c.c.:—	Number of Samples.
Under 100,000 ...	21
100,000—200,000...	12
200,000—500,000...	17
500,000—1,000,000	7
Over 1,000,000 ...	15
Presence of <i>Bacillus Coli</i> :—	
Absent in 1 c.c. ...	2
Present in 1 c.c. ...	10
„ „ 1/10 c.c. ...	17
„ „ 1/100 c.c. ...	28
„ „ 1/1,000 c.c. ...	11
„ „ 1/10,000 c.c. ...	4
Presence of <i>Bacillus Welchii</i> :—	
Absent in 10 c.c. ...	26
Present in 10 c.c. ...	31
„ „ 1 c.c. ...	15

Sixty-two of the samples contained starch, 16 contained gelatine and one sample contained boric acid.

Legal Proceedings.—The following is a summary of legal proceedings taken during the year in connection with food inspection:—

Acts, etc., under which Proceedings were taken	Number	Fined	Cautioned	To pay costs only	Dismissed	With-drawn	Amount of Fines and Costs
Food and Drugs (Adulteration) Act, 1928 ...	17	8	1	4	4	...	£ s. d.
Milk and Dairies Acts and Order ...	37	37	...	...	...	...	42 5 0
Merchandise Marks Act, 1926	5	1	...	4	...	...	1 6 0
Sale of Food Order, 1921 ...	1	1	...	...	...	...	10 0
Totals ...	60	47	1	8	4	...	£62 16 1

Report for 1932 of Mr. S. Dixon, M.Sc., F.I.C., Public Analyst.

Food and Drugs (Adulteration) Act, 1928:—During 1932, the number of samples of food and drugs submitted for analysis under the Food and Drugs (Adulteration) Act, 1928, by the sampling officers of the Urban Sanitary Authority was 1,302. This total represents 5·8 samples taken for each 1,000 of the population of the city. Sixty-nine, or 5·3 per cent., were returned as adulterated.

The following table shows the number and nature of the various articles and the number of samples of each variety classed as adulterated:—

Description of Sample	Number Submitted	Number Adulterated
Almonds, Ground	4	...
Apricots, Dried	17	...
Arrowroot	6	...
Bicarbonate of Soda	2	...
Beer	4	...
Borax	2	...
Brandy	1	...
Butter	64	...
Camphorated Oil	6	...
Candied Peel	4	...
Cheese	6	...
Cherries, Glace	2	...
Cider	4	...
Cinnamon, Ground	6	...
Cocoa	7	...
Coffee	18	...
Cream	33	...
Currants	6	...
Custard Powder	4	...
Epsom Salts	4	...
Flour	10	...
Flour, Self-raising	8	...
Fruit Juices and Cordials	6	2
Gin	6	1
Ginger, Ground	10	...
Glycerine of Boric Acid	2	...
Golden Syrup	1	...
Honey	1	...
Iodine, Tincture of	7	1
Jam	5	1
Lard	4	...
Margarine	39	...
Medicine, Prescribed	1	...
Milk	797	52
Milk, Condensed	6	...
Milk, Skimmed	12	2
Nut Cream Butter	1	...
Oatmeal	6	...
Pears, Dried	3	...
Peas, Dried	4	...
Pepper	18	...
Pepper, Cayenne	6	...
Prunes	4	...
Raisins	10	1
Rice	14	...
Rice, Ground	6	...
Rum	4	...
Sauce	4	...
Sausages	10	...
Sugar	7	1
Sultanas	26	2
Tea	18	...
Vinegar	33	5
Whiskey	11	1
Wine, Alcoholic	2	...
Totals	1,302	69

Details of the samples classified as adulterated are as follows :—

Article	Formal or Informal	Nature of Adulteration or Irregularity
Gin	Formal ...	Contained 33·3 per cent. of excess water
Iodine, Tincture of	„	Deficient of 11·5 per cent. of iodine and 14 per cent. of potassium iodide
Jam	Informal	Contained 60 parts per million of sulphur dioxide
Lime Juice Cordial	Formal ...	Contained 130 parts per million of salicylic acid.
Lime Juice Cordial	Informal	Contained 130 parts per million of salicylic acid.
Milk (2 samples) ...	Formal ...	Deficient of 3 per cent. of fat,
Milk (2 samples) ...	Informal	„ 4 „ „
Milk (4 samples) ...	Formal ...	„ 4 „ „
Milk (3 samples) ...	„ ...	„ 5 „ „
Milk (3 samples) ...	„ ...	„ 6 „ „
Milk (3 samples) ...	„ ...	„ 7 „ „
Milk ...	Formal, ...	„ 8 „ „
Milk (2 samples) ...	„ ...	„ 9 „ „
Milk ...	„ ...	„ 10 „ „
Milk (3 samples) ...	Informal	„ 11 „ „
Milk (3 samples) ...	Formal ...	„ 11 „ „
Milk (2 samples) ...	„ ...	„ 12 „ „
Milk ...	„ ...	„ 15 „ „
Milk (2 samples) ...	„ ...	„ 16 „ „
Milk ...	Informal	„ 17 „ „
Milk ...	Formal ...	„ 17 „ „
Milk ...	Informal	„ 20 „ „
Milk ...	Formal ...	„ 26 „ „
Milk ...	Informal	„ 33 „ „
Milk (2 samples) ...	Formal ...	Deficient of 1·5 per cent. of non-fatty solids.
Milk (2 samples) ...	„ ...	„ 2 „ „ „
Milk (5 samples) ...	„ ...	„ 4 „ „ „
Milk (2 samples) ...	„ ...	„ 4·5 „ „ „
Milk ...	„ ...	„ 7 „ „ „
Milk ...	„ ...	„ 8 „ „ „
Milk ...	Informal	Deficient of 2 per cent. of fat and 1 per cent. of non-fatty solids.
Milk ...	„ ...	Deficient of 48 per cent. of fat and 3·5 per cent. of non-fatty solids.
Milk, Skimmed	Formal ...	Deficient of 6 per cent. of non-fatty solids.
Milk, Skimmed	„ ...	„ 22 „ „ „
Raisins	„ ...	Contained 800 parts per million of sulphur dioxide.
Sugar ...	Informal	Contained 0·25 per cent. of lard.
Sultanas (2 samples)	Formal ...	Contained 1,000 parts per million of sulphur dioxide.
Vinegar	„ ...	Deficient of 6 per cent. of acetic acid.
Vinegar	„ ...	„ 16 „ „ „
Vinegar	„ ...	„ 25 „ „ „
Vinegar	„ ...	„ 28 „ „ „
Vinegar	„ ...	„ 55·7 „ „ „
Whiskey	„ ...	Contained 5·2 per cent. of excess water.

Milk.—Samples of milk have been taken, as usual, from ordinary roundsmen, from shops and also upon delivery at various institutions. In addition, since the beginning of June, samples of graded milk have been submitted regularly for chemical analysis. These are taken primarily for bacteriological examination and they constitute practically all of the informal samples of milk. The average quality of the graded milk was slightly better than that of the ordinary milk, as will be seen from the following table :

	Number of Samples	Fat per cent.	Non-fatty Solids per cent.	Total Solids per cent.
Graded milk	270	3·78	8·87	12·65
Ordinary milk	527	3·68	8·79	12·47

The two following tables show the average composition of all the milk examined during 1932 and during the four years 1929-1932.

Average Composition of all Milk Samples, 1932.

Month	Number of Samples	Fat per cent.	Non-fatty Solids per cent.	Total Solids per cent.
January	52	3.58	8.70	12.28
February	58	3.76	8.74	12.50
March	55	3.55	8.67	12.22
April	32	3.61	8.76	12.37
May	60	3.56	8.82	12.38
June	82	3.42	8.81	12.23
July	93	3.68	8.78	12.46
August	89	3.60	8.85	12.45
September	79	3.80	8.87	12.67
October	53	4.13	8.97	13.10
November	83	4.10	8.85	12.95
December	61	3.83	8.88	12.71
Whole year	797	3.72	8.81	12.53

Average Composition of all Milk Samples, 1929-1932.

Year	Number of Samples	Fat per cent.	Non-fatty Solids per cent.	Total Solids per cent.
1929	487	3.71	8.87	12.58
1930	519	3.69	8.90	12.59
1931	600	3.79	8.78	12.57
1932	797	3.72	8.81	12.53
1929-1932	2,403	3.73	8.83	12.56

The Sale of Milk Regulations, 1901, provide that milk containing less than 3 per cent. of milk-fat or less than 8.5 per cent. of non-fatty solids is to be presumed not to be genuine until the contrary is proved. These regulations, therefore, do not fix definite standards, but merely set up presumptive limits in order to allow for those few cases where milk naturally falls below the prescribed minimum amounts. Although it is no offence to sell milk the composition of which is below these limits, provided it is in the same condition in which it is given by the cows, the onus of proof that such is the case is placed on the vendor.

In order to prevent the vendor of a naturally poor milk being brought into court, it is the practice in Cardiff before legal proceedings are instituted in connection with the sale of milk which has been found to be below the prescribed limits of composition, to make further investigations in order to determine, as far as possible, if the milk is naturally of poor quality or whether there is evidence of carelessness or adulteration, and in the latter case to ascertain who is responsible.

When the vendor is the farmer owning the cows that have produced the milk, a sample is obtained as soon as possible at the farm after the corresponding morning or evening milking of the same cows has been carried out in the usual manner under the supervision of an inspector, to ensure that there is no interference with the milk. This is

known as an "appeal to cow" sample, and to procure some of these the co-operation of neighbouring County Authorities has been obtained. If the vendor is not the producer, samples are taken on the following day in course of delivery to him, and should any of these prove to be deficient, "appeal to cow" samples are taken at the farm. In this way the milk is traced from the vendor back to its source, and careful comparison of the results of analysis of these related samples is made. When both the original sample and the "appeal to cow" sample are of poor quality, no proceedings are taken, but in those cases where the results indicate that the milk sold was not as given by the cows further investigation is made by legal methods.

Where this procedure has led to the conclusion that a deficiency in the non-fatty solids of a milk was due to the presence of extraneous water, confirmation has been obtained by the application of the freezing-point test.

Investigations in this country and abroad have fully established that the freezing point of genuine milk varies within comparatively narrow limits and is the most constant of any of its properties. The addition of water raises the freezing point in proportion to the quantity added, and this determination therefore not only provides the most reliable means of detecting its presence in milk, but enables a more accurate estimate to be made of the actual amount added than is possible by calculation from the non-fatty solids based upon the presumptive limit of 8.5 per cent. for genuine milk.

The determination of the *true* freezing point of milk, i.e. the temperature at which milk is in exact equilibrium with ice, necessitates the application of various corrections (depending on the apparatus used and the conditions of the test, the total magnitude of which is difficult to ascertain with accuracy) to the *apparent* freezing point observed. The apparatus used by Dr. Monier-Williams, who made a report on the freezing-point test to the Local Government Board in 1914, though capable of yielding results of great accuracy, was too elaborate for purposes of milk control. It was extensively modified and simplified by Hortvet, and in order to avoid the use of corrections which may be of doubtful accuracy, all the parts were standardised and the technique used was carefully specified.

This apparatus—known as the Hortvet Cryoscope—provides a comparatively simple and rapid means for the determination of the apparent freezing point of milk under fixed conditions, and during the last two or three years it has been used by an increasing number of Public Analysts in this country. This method was officially adopted by the Association of Official Agricultural Chemists in the United States, and it has been recently recommended for use in the examination of milk for administrative purposes in this country by the Society of Public Analysts. Provided that the milk is quite fresh and that the procedure laid down is rigidly adhered to, results obtained by different workers are strictly comparable, but figures obtained by the use of different apparatus, varying conditions of test, or to which any corrections other than those for inaccuracies in the thermometer have been applied, cannot be directly compared with them. The test cannot be applied to sour milk, owing to the conversion of milk sugar into lactic acid, which has the effect of lowering the freezing point, thus making the milk appear of better quality than would have been indicated if it had been examined in a fresh condition.

The results obtained by numerous chemists who use this apparatus in the prescribed manner and who record the observed freezing point show that the usual range of variation for genuine milk is from -0.530°C. to -0.570°C. Very few results outside this range have been obtained, and abnormality in milk (not due to interference) appears to produce a lower value than the normal, not a higher freezing point as in the case of watering.

The following is a summary of the figures obtained in this laboratory from the milk of 10 individual cows at the City Mental Hospital Farm, with the kind co-operation of the Medical Superintendent. The morning milk was collected on 12 consecutive days and on the next 12 days the evening milk was sampled.

Genuine Milk from Individual Cows.

237 results ranged from -0.530°C. to -0.569°C.

1 result was -0.529°C.

2 results were -0.603°C. and -0.620°C.

The last two results, which are abnormally low, were obtained from the milk taken on successive mornings from the same cow, and on the first of these days it was observed that the animal was very frightened by new blocks of salt that had been put into the mangers. There was also an abnormal increase in the non-fatty solids of the milk on these two days. It is noteworthy that in no single instance would any suspicion be cast upon the authenticity of these samples from the freezing-point results, though in six samples the non-fatty solids ranged from 8.19 per cent. to 8.44 per cent.

Genuine Milk from Herds.

The mixed milk from the herd of 10 cows gave the following ranges in the course of 12 days:—

Morning milk:—From -0.540°C. to -0.551°C.

Evening Milk:—From -0.544°C. to -0.550°C.

Although the interval between the evening and the morning milkings was $15\frac{1}{2}$ hours, it will be observed that this had no effect on the freezing point of the milk.

Three "appeal to cow" samples taken under the Act had 8.33, 8.52 and 8.64 per cent. of non-fatty solids respectively, and the corresponding freezing points were -0.538°C. , -0.534°C. and -0.542°C.

These figures agree with those obtained from known genuine milk by other observers.

In addition to these results, 38 routine samples of milk believed to be genuine had a range of variation of -0.533°C. to -0.567°C. , 5 others low in non-fatty solids (8.2 per cent. to 8.4 per cent) gave normal figures (-0.532°C. to -0.545°C.), which indicated that they were naturally deficient and not adulterated, whilst 8 samples with non-fatty solids varying from 7.80 to 8.37 per cent. gave results from -0.483°C. to -0.513°C. , and they were returned as adulterated.

In the following table the results of analysis of samples of milk which have been followed up in the manner indicated, and of corresponding samples taken for comparison, are shown:—

Source of Milk	Result of Analysis				Observations	Action taken
	Fat	Solids not Fat	Total Solids	F.P. (H.) °C		
From retailer ...	3.93	7.90	11.83	—0.485	Deficient of 7% S.N.F.	Prosecution; to pay 4/- costs. Prosecution; fined £5.
From producer, in course of delivery to vendor of No. 129	3.62	7.80	11.42	—0.483	Deficient of 8% S.N.F.	
"Appeal to cow" sample	4.36	8.52	12.88	—0.534	Genuine ...	
From retailer ...	2.67	8.83	11.50	...	Deficient of 11% of fat ...	Prosecution; to pay 4/- costs. Prosecution; fined £2 and 3/6 costs.
From producer, in course of delivery to vendor of No. 340 ...	2.70	8.88	11.58	...	Deficient of 10% of fat ...	
"Appeal to cow" sample	3.21	8.73	11.94	...	Genuine. ...	
From retailer ...	2.62	9.00	11.62	...	Deficient of 12% of fat ...	} No legal action taken. "Appeal to cow" sample low in fat.
From producer, in course of delivery to vendor of No. 384 ...	2.72	8.98	11.70	...	Deficient of 9% of fat ...	
"Appeal to cow" sample	2.51	9.17	11.68	...	Deficient of 16% of fat ...	
From retailer ...	3.68	8.09	11.77	—0.513	Deficient of 4½% S.N.F.	} Cautioned.
From producer, in course of delivery to vendor of Nos. 492 and 493 ...	3.68	8.11	11.79	—0.509	Deficient of 4½% S.N.F.	
	3.58	8.51	12.09	—0.540	Genuine ...	
From retailer ...	2.66	8.74	11.40	...	Deficient of 11% of fat ...	Prosecution; case dismissed. Prosecution; case dismissed.
From producer, in course of delivery to vendor of No. 595 ...	2.50	8.70	11.20	...	Deficient of 16% of fat ...	
"Appeal to cow" sample	3.33	8.75	12.08	...	Genuine ...	
From retailer ...	2.67	8.50	11.17	...	Deficient of 11% of fat ...	} Cautioned.
From producer, in course of delivery to vendor of No. 873 ...	2.73	8.73	11.46	...	Deficient of 9% of fat ...	
	2.62	8.50	11.12	...	Deficient of 12% of fat ...	
"Appeal to cow" sample	3.18	8.33	11.51	—0.538	Low in non-fatty solids...	
From producer-retailer ...	2.54	8.74	11.28	...	Deficient of 15% of fat	No legal action taken. "Appeal to cow" sample low in fat.
"Appeal to cow" sample	2.20	8.64	10.84	...	Deficient of 26% of fat ...	
From retailer (informal)	2.78	8.64	11.42	...	Deficient of 7% of fat ...	Prosecution; fined £1.
From retailer (formal) ...	2.74	8.58	11.32	...	Deficient of 8% of fat ...	
From producer, in course of delivery to vendor of Nos. 905 and 906 ...	3.38	8.84	12.22	...	Genuine ...	
	3.28	8.88	12.16	...	Genuine ...	

F.P. (H.)—Freezing Point (Hortvet).

S.N.F.—Solids not Fat.

Preservatives in Food Regulations.—No preservatives were found in any of the samples of milk, cream, butter or margarine. In the table below, the various articles in which preservatives were detected and the amounts present are shown:—

Article	Number Examined	Number containing Preservative	Preservative	Parts per million	
				Amount present	Maximum permitted
Apricots, Dried ...	17	17	Sulphur Dioxide	515, 530, 575, 580, 585, 710, 725, 785, 835, 870, 890, 900, 910, 1050, 1065, 1380, 1635	2,000
Beer ...	4	3	„	30, 40, 45	70
Candied Peel ...	4	1	„	30	100
Cider ...	4	4	„	10, 55, 60, 105	200
Fruit Juices and Cordials ...	6	5	{ Benzoic Acid 1 Salicylic Acid 2 Sulphur Dioxide 2	380 130, 130 140, 220	600 None 350
Golden Syrup ...	1	1	Sulphur Dioxide	10	70
Jam ...	5	4	„	10, 25, 25, 60	40
Pears, Dried ...	3	3	„	290, 630, 755	2,000
Raisins ...	10	5	„	180, 405, 515, 535, 800	750
Sausages ...	10	1	„	265	450
Sugar ...	7	3	„	5, 10, 10	70
Sultanas ...	26	11	„	45, 120, 180, 190, 310, 360, 410, 415, 460, 1000, 1000	750
Wine, Alcoholic ...	2	1	„	115	450

Legal Proceedings.—The following table shows the articles, other than milk referred to on page 69, in which legal proceedings were taken and the results of such action:—

No. of Sample	Article	Result of Analysis	Result of Prosecution
1288	Gin	Contained 33·3 per cent. of excess water.	Fined £5
46	Skimmed Milk	Deficient of 22 per cent. of non-fatty solids.	Fined £3
50	„	„ 6 „ „ „ „	Fined £2
278	Sultanas	Contained 1,000 parts per million of sulphur dioxide	Dismissed
1105	„	„ 1,000 „ „ „ „	Dismissed on warranty
369	Vinegar	Deficient of 55·7 per cent. of acetic acid	Fined 15/-
810	„	„ 28 „ „	Fined £1
1218	„	„ 16 „ „	Fined 15/-
1219	„	„ 25 „ „	Fined £1
1278	Whiskey	Contained 5·2 per cent of excess water	Fined £2

Appropriate action was taken by the Medical Officer of Health and the Chief Sanitary Inspector in respect of other samples returned as adulterated but in which no legal proceedings were instituted.

Fertilisers and Feeding Stuffs Act, 1926.—Seventeen samples, consisting of 2 fertilisers and 15 feeding stuffs, were submitted for examination. These were all informal samples taken from retailers, manufacturers and farms within the city. Particulars of these articles are as follows:—

Article	Number examined	Number unsatisfactory	Observations
Barley Meal	2	...	Albuminoids—Guaranteed 24·57%, Present 19·0%.
Bean Meal	1	...	
Bran	1	...	
Brewers' Grains, Dried ...	1	1	
Compound Meal	2	...	
Fish Meal	1	...	Contained 5·0% of sand and siliceous matter
Fish Meal, White	1	...	
Maize Meal	1	...	
Meat and Bone Meal	1	1	
Oats, Sussex Ground	2	...	
Sharps	2	...	
Sulphate of Ammonia	1	...	
Superphosphate	1	...	
Totals	17	2	

Although in the fish meals there were deviations from the figures guaranteed in excess of those allowed, these were not considered such as to justify the samples being returned as unsatisfactory in their chemical composition.

Rag Flock Acts, 1911 and 1928.—Twelve samples of rag flock were examined, and of these, 10 conformed to the standard of cleanliness laid down by the Rag Flock Regulations. One sample was found to contain 58 parts of water-soluble chlorine per million of flock, whereas the maximum amount permitted is 30 parts per million, and another sample obtained subsequently from a different vendor contained a similar amount. Upon enquiry it was found that these flocks were obtained from the same manufacturers, and since their attention had been called to the results of analysis of the first of these samples and to other samples previously examined which had been found not to comply with the Regulations, legal proceedings were taken by the Chief Sanitary Inspector and a fine of £5 was inflicted.

Imported Food.—In addition to the food and drugs analysed for the Urban Sanitary Authority, 24 samples of imported food were examined for the Port Sanitary Authority. These comprised the following articles:—

Apples, Dried	1	Fruit Juice	1
Apricots, Dried	1	Raisins	14
Currants	1	Sugar	1
Fruit Pectin	1	Sultanas	1
Fruit Pulp	2	Vegetable Fat	1

A sample of Persian raisins was considered unfit for consumption. The fruit was dirty and contaminated with sand (0·7 per cent.) and hairy matter. With this exception, these articles were of satisfactory quality and those that were preserved complied with the requirements of the Preservatives in Food Regulations.

- Miscellaneous Samples.*—Particulars of other samples examined during the year are:
- For the Public Health Department—34. These consisted of milk (10), skimmed milk (4), humanised milk powder (2), clotted cream (1), meat tissue (10), stained cloths (4), wines (3). Two of the three samples of wine were of Spanish origin and contained somewhat excessive amounts of arsenic, viz., 1/45 and 1/75 grain of arsenious oxide per gallon of wine.
- For the Public Works Department—Mortar (5), concrete (4), cement (2), lime (2) and ashes (1).
- For the Public Assistance Committee—Two samples of vomit and one of urine from the City Lodge Hospital and six drugs and two medicines from the Outdoor Dispensary.
- For the Transport Department—A sample of cleaning preparation.
- For the City Treasurer and Controller's Department—A sample of duplicating fluid.
- For the South Wales Flock Company—14 samples of rag flock.
- From the City Mental Hospital Farm—264 samples of milk. The results of analysis of these have already been discussed in connection with the determination of the freezing point of milk.

Summary.—The total number of samples examined during the year was therefore as follows:—

Food and Drugs for Urban Sanitary Authority	...	1,302
Imported Food for Port Sanitary Authority	...	24
Under Fertilisers and Feeding Stuffs Act	...	17
Under Rag Flock Act	...	12
For Public Health Department	...	34
For Public Assistance Committee	...	11
For City Treasurer and Controller's Department	...	1
For Public Works Department	...	14
For Transport Department	...	1
For South Wales Flock Company	...	14
From the City Mental Hospital Farm (for experimental purposes)	...	264
Total	...	1,694

XIV.—GENERAL SANITATION.

Statements as to the nature and extent of the work done during 1932 in connection with general sanitary inspection are given below. A summary of legal proceedings and particulars with regard to disinfection, baths at the Cleansing Station and bodies removed to the Public Mortuary are also included.

GENERAL SANITARY INSPECTION.

Complaints of nuisances received 1,779

	Inspections or Visits	Intimation Notices		Statutory Notices	
		Served	Complied	Served	Complied
House inspections for nuisances ...	3,537	2,548	2,799	263	292
" " in connection with in-					
fectious diseases ...	2,633	...	...	...	...
" " for vermin ...	787	149	148	...	...
" " for other conditions ...	538	...	...	...	...
Houses inspected and recorded ...	1,299	...	...	...	...
Re-inspections of houses ...	14,253	...	...	...	...
Owners and contractors interviewed ...	1,737	...	...	...	...
Knackers' yards ...	12	...	...	...	...
Slaughter-houses ...	478	...	...	...	...
Milkshops, etc. ...	1,961	30	30	...	...
Cowsheds ...	163	10	13	...	...
Offensive trades ...	73	2	3	...	...
Workshops—					
Bakehouses ...	304	48	40	...	...
Bootmakers ...	132	6	3	...	...
Dressmakers and milliners ...	8	6	5	...	...
Laundries ...	42	6	4	...	...
Tailors ...	134	11	7	...	...
Miscellaneous ...	433	16	13	...	...
Factories—					
Bakehouses ...	213	13	24	...	...
Bootmakers ...	38	2	2	...	...
Laundries ...	68	4	2	...	...
Tailors ...	14	2	2	...	...
Dressmakers and milliners ...	3	...	...	...	...
Miscellaneous ...	698	42	30	...	...
Workplaces ...	364	16	12	...	...
Tailors' outworkers ...	12	...	...	...	...
Seamen's lodging houses (day) ...	1,461	155	104	...	...
" " " (night) ...	228	...	...	...	...
Common lodging houses (day) ...	99	6	7	...	...
" " " (night)... ...	5	...	...	...	...
Houses let in lodgings ...	266	16	23	...	...
Tents, vans, sheds and similar structures	412	8	8	...	...
Amusement places ...	201	7	4	...	...
Public houses ...	115	21	13	...	...
Schools ...	230	5	6	...	...
Swimming baths ...	128	1	1	...	...
Water supplies ...	8	...	...	...	...
Water courses ...	104	3	3	...	...
Refuse tips ...	16	...	...	...	...
Accumulations ...	449	16	12	...	...
Sewers ...	135	2	2	...	...
Drains ...	4,321	147	127	...	...
Public urinals ...	201	...	...	...	...
Cesspools ...	13	1	...	...	...
Back lanes ...	293	7	6	...	...
Rat infestation ...	835	50	41	...	...
Premises where swine or other animals are					
kept ...	198	23	26	...	...
Marine store hawkers ...	63	...	1	...	...
Smoke and grit observations ...	197	2	2	...	...
Visits not classified ...	3,222	...	...	...	...

NUISANCES ABATED, REPAIRS EXECUTED, ETC.

Houses:—

Walls repaired	258
Outside plastering repaired	409
Inside plastering repaired	574
Damp-proof courses inserted	50
Floors renewed or repaired	397
Floors ventilated	42
Roofs renewed or repaired	736
Shutes, downpipes or gutters renewed or repaired	648
Chimneys repaired	193
Ceilings repaired	224
Doors and frames repaired	258
Lighting and ventilation of rooms improved	54
Window sashes or frames renewed or repaired	447
Window cords renewed	441
Staircases repaired	21
Grates or ovens repaired or renewed	229
Boilers provided or repaired	138
Food stores provided or improved... ..	46
Washhouses provided or improved	54
Out-buildings repaired	15
Obstructive out-buildings demolished	10
Walls or ceilings cleansed and redecorated	122
Bedding cleansed or destroyed	16
Rooms treated for vermin	573
Overcrowding abated	7
Yard paving relaid or repaired	512
Nuisances from animals abated	6
Accumulations removed	51
Ash-bins provided	4
Water supply provided	5
Water taps or pipes repaired	40
Water samples taken for analysis	18
Miscellaneous repairs and nuisances abated	234

Drainage:—

Drains tested (smoke)	354
„ „ (chemical)	1,179
New drains constructed	63
Drains reconstructed	435
Drains repaired	732
Drains under houses abolished	28
Drains cleansed	359
Drains cleansed or repaired by Corporation in default of owners	12
Inspection or intercepting chambers provided or repaired	99
Intercepting traps fixed	10
Soilpipes or ventilating shafts fixed or repaired	60
Rain-water pipes disconnected	4
Gullies fixed	117
Troughs provided	104
Troughs trapped or waste pipes repaired	130
Bath waste pipes trapped or repaired	16
Lavatory basins trapped or waste pipes repaired	10

NUISANCES ABATED, REPAIRS EXECUTED, ETC.—(contd).

Additional w.c.'s provided	...	...	...	64
Drain inlets inside houses abolished	...	...	...	1
W.c.'s reconstructed	...	...	...	771
Lighting and ventilation of w.c.'s improved	...	...	...	19
New pans and traps fixed	...	...	...	2,248
W.c. pans cleansed	...	...	...	20
Flushing apparatus provided	...	...	...	2,713
Flushing apparatus repaired	...	...	...	52
Miscellaneous repairs	...	...	...	344

Cesspools:—

Abolished and house connected to sewer	...	...	...	5
Constructed	...	...	...	1
Emptied	...	...	...	2
Other repairs	...	...	...	1

Seamen's Lodging Houses:—

Limewashing or cleansing carried out	...	...	...	165
Bedding renewed	...	...	...	9
Verminous rooms treated	...	...	...	52
Bedsteads cleansed or repaired	...	...	...	151
Accumulations removed	...	...	...	2
Overcrowding abated	...	...	...	4
Washing accommodation provided	...	...	...	16
Other repairs	...	...	...	16
Additional w.c. accommodation provided	...	...	...	1

Common Lodging Houses:—

Limewashing or cleansing carried out	...	...	...	11
Bedding renewed	...	...	...	1
Verminous rooms treated	...	...	...	3
W.c.'s repaired	...	...	...	1
Other repairs	...	...	...	5

Urinals:—

Additional urinals provided	...	...	...	3
Urinals reconstructed	...	...	...	1
Walls repaired or made impervious	...	...	...	2
Flushing apparatus fixed or repaired	...	...	...	6
Floors repaired	...	...	...	1

Earth or Pail Closets:—

Abolished	...	...	...	22
Provided	...	...	...	1
Cleansed or repaired	...	...	...	3

Tents, Vans or Sheds:—

Removed	...	...	...	51
Sanitary improvements effected	...	...	...	2

Amusement Places:—

W.c.'s repaired	...	...	...	3
Cleanliness improved	...	...	...	4
Ventilation improved	...	...	...	4
Other repairs	...	...	...	4

NUISANCES ABATED, REPAIRS EXECUTED, ETC.—(contd.)

Dairies, Cowsheds and Milkshops:—

New dairies constructed ...	...	...	5
New cowshed constructed ...	...	...	1
Existing dairies improved ...	...	...	6
Existing cowshed improved ...	...	...	1
Drainage improved ...	...	...	1
Paving repaired ...	...	...	4
Lighting or ventilation improved ...	...	...	3
Limewashing or cleansing carried out ...	...	...	60
Water supply provided ...	...	...	2
Sterilisers fixed ...	...	...	7
Ash-bins provided ...	...	...	2
Accumulations of manure removed ...	...	...	13
Other repairs ...	...	...	7

Ice Cream Premises:—

Limewashing or cleansing carried out ...	...	...	36
Ash-bins provided ...	...	...	15
Accumulations removed ...	...	...	2
Premises improved ...	...	...	11
Other repairs ...	...	...	8
Use of unsuitable premises discontinued ...	...	...	1

Food Shops, Kitchens, etc.:—

Communicating sleeping places abolished ...	...	...	1
Accumulations removed ...	...	...	7
Cleanliness improved ...	...	...	28
Storage arrangements improved ...	...	...	6
Ash-bins provided ...	...	...	7
Other repairs ...	...	...	5
Washing-up sinks fixed ...	...	...	6
Water supply provided ...	...	...	2

Food Vehicles:—

Warnings regarding general cleanliness of vehicle, person or covering	8
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Fried Fish Shops:—

New ranges fitted	12
Ash-bins provided	14
Cleansing carried out	31
Storage accommodation provided or improved ...	...	...	14
Drainage improved ...	...	...	6
Lighting or ventilation improved ...	...	...	4
Accumulations removed ...	...	...	3
Other repairs ...	...	...	20
Use of unsuitable premises discontinued ...	...	...	2

Houses Let in Lodgings:—

Limewashing or cleansing carried out ...	...	...	14
Other repairs ...	...	...	20
Ash-bins provided ...	...	...	1
Overcrowding abated ...	...	...	1

Offensive Trades:—

Accumulations removed ...	...	...	8
Cleanliness improved ...	...	...	8
Floors or walls repaired ...	...	...	1

NUISANCES ABATED, REPAIRS EXECUTED, ETC.—(contd.)

Stables:—

Accumulations of manure removed	...	...	41
Paving repaired or renewed	...	...	3
Drains provided	...	...	2
Limewashing carried out...	...	...	15

Back Lanes:—

Accumulations removed	10
Surfaces repaired	1

Miscellaneous repairs or nuisances abated	4
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Water Supply.—Cardiff is provided with a supply of pure, soft water, which is gathered in reservoirs in the Taff Fawr Valley. The waterworks are owned by the Council and in normal conditions the supply is ample for all needs. Chemical analysis and bacteriological examination of the water from reservoirs, filter beds and supply taps are made frequently. During the year, 83 chemical analyses and 87 bacteriological examinations were carried out, and all samples taken after filtration were reported to be satisfactory.

Forty-five premises still obtain their water supply from wells or springs. These premises comprise 37 dwelling-houses, 4 farms with dwelling-houses attached and 4 dairy premises. They are supplied by 26 wells and 3 springs. The examination of the water from these sources showed that 17 wells and one spring were giving satisfactory supplies, 3 wells and 2 springs were of doubtful quality, and 6 supplies were contaminated. Steps are being taken to secure the abolition of all suspicious supplies and to substitute water from the public supply.

Drainage and Sewerage.—It has been found during recent years that the sewerage scheme is insufficient to deal with all the surface water caused by abnormally heavy rainfall. The construction of works for preventing flooding in certain parts of the city was commenced during 1932, and when they are completed it is considered that the danger of flooding will be slight.

Choked and Defective Drains.—Section 98 of the Cardiff Corporation Act, 1930, empowers the Medical Officer of Health or Sanitary Inspector to give notice to the owner or occupier that a drain, water closet or soil pipe is choked up or defective, and, if such notice is not complied with within 24 hours, the Corporation may carry out the necessary work and recover the cost. This power has been invaluable in dealing with urgent drainage defects. During the year the Corporation acted in 11 cases in which the owner or occupier failed to carry out the work and no difficulty has been experienced in recovering the cost incurred.

Flushing Cisterns.—The provision of flushing cisterns to hand-flushed closets is proceeding rapidly. During the year, 2,713 cisterns were installed, making a total of 4,540 since the work was commenced in February, 1931.

Conservancy System Closets.—The numbers of closets remaining on the conservancy system at the end of the year were as follows:—

Earth closets	...	...	...	...	7
Privies	...	...	...	...	98
Total	...	...	...	...	105

As a result of action taken under Section 100 of the Cardiff Corporation Act, 1930, the number of privies in use was reduced by 25 during 1932.

Cesspools.—There are now 51 cesspools in the city receiving drainage from dwelling-houses and 4 cesspools in connection with factories.

Scavenging.—The scavenging of streets and house refuse is undertaken directly by the Council. Refuse from business premises in the centre of the city is collected daily and house refuse in other districts is collected twice weekly. Approximately 80 per cent. of the refuse is tipped at well-managed refuse tips in several districts, the remainder being destroyed in an incinerator at the Western District Sewage Pumping Station.

Pollution of Rivers, etc.—No special action was taken during 1932 specifically to counter the pollution of rivers, most of whose reaches within the city boundaries are tidal. The City Council have for several years endeavoured to establish a co-operative arrangement with other local authorities to deal with the pollution of rivers, but so far without success.

Open-Air Swimming Baths and Roath Park Lake.—The Department has continued, in collaboration with the Parks Department, to maintain the water of the open-air swimming baths and Roath Park Lake in a satisfactory condition for bathing. The Lake was treated with copper sulphate, as usual, to prevent a recurrence of the urticarial eruption affecting the bathers, caused by cercariae in water snails (see Annual Report, 1929).

Rat Destruction.—The following is a summary of the work of the Department in connection with the destruction of rats:—

Amount of poisons sold	...	...	...	tins	189
Number of baits laid in public sewers	...	...	...	...	6,647
Number of baits eaten...	...	...	...	...	3,581
Number of baits laid elsewhere	...	...	...	...	26,621
Number of baits eaten...	...	...	...	...	16,395
Total number of baits laid	...	...	...	...	33,268
Total number of baits eaten	...	...	...	...	19,976

During the year, 1,734 live rats from premises in the city were submitted to the Department of Zoology, National Museum of Wales, for identification and for examination of their parasitic fleas, for comparison with those submitted from ships and the docks.

Ventilation of Cinemas.—Observations with the object of checking the efficiency of the ventilation of cinemas have been continued. The results of the observations prove that more attention is now being paid by the proprietors to the importance of maintaining the air of these buildings in a state conducive to health. Unfortunately the efforts of the Department in endeavouring to persuade cinema proprietors to instal hygrometers in different parts of the cinemas have not met with success.

Smoke Abatement.—A byelaw is in force limiting the emission of black smoke to two minutes in the aggregate within any continuous period of thirty minutes. On no occasion has it been found necessary to institute legal proceedings, and in the few cases where contraventions of the byelaw or of the Public Health (Smoke Abatement) Act have been observed, manufacturers have speedily secured the abatement of the nuisance.

Rag Flock Acts, 1911 and 1928.—There is one rag flock factory in the city, the buildings and plant being modern. Samples of the flock are periodically submitted for examination by the Public Analyst to ensure that the required standard is maintained.

Factories, Workshops and Workplaces.—Details of the sanitary inspection of factories, workshops, and workplaces under the Factory and Workshop Act, 1901, are given in the following tables:—

I.—INSPECTION OF FACTORIES, WORKSHOPS AND WORKPLACES.

PREMISES	Number of		
	Inspections	Written Notices	Prosecutions
Factories (including Factory Laundries)	1,034	63	...
Workshops (including Workshop Laundries)	1,053	93	...
Workplaces (other than Outworkers' premises included in Part 3 of this Report)	364	16	...
Totals	2,451	172	...

2.—DEFECTS FOUND IN FACTORIES, WORKSHOPS AND WORKPLACES.

PARTICULARS	Number of Defects		
	Found	Remedied	
Nuisances under the Public Health Acts:—			
Want of Cleanliness	145	146	
Want of Ventilation	3	3	
Overcrowding ... ..	...	...
Other Nuisances	20	23	
Sanitary accommodation {	insufficient	8	5
	unsuitable or defective ...	37	41
	not separate for sexes ...	2	1
Breach of special sanitary requirements for bakehouses (Sec. 97 to 100) ... ..	...	...
Totals	215	219	

3.—HOME WORK.

[illegible]

4.—REGISTERED WORKSHOPS.

Workshops on the Register (S. 131) at the end of the Year	Number
Bakers... ..	96
Bootmakers	139
Dressmakers and milliners	67
Laundries	20
Tailors	150
Miscellaneous	343
Total Number of Workshops on Register... ..	815

5.—OTHER MATTERS.

Class	Number
Matters notified to H.M. Inspector of Factories:—	
Failure to affix Abstract of the Factory and Workshop Act (Sec. 133) ...	...
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts but not under the Factory Act:—	
Notified by H.M. Inspector	17
Reports (of action taken) sent to H.M. Inspector	15
Other (Notices of Occupation of Workshops received from H.M. Inspector) ...	37
Underground Bakehouses in use at the end of the year ... ..	...

Shops.—The following is a summary of the work done under the Shops Acts and in connection with the sanitary inspection of shops :—

Closing Orders in operation	15
Observations of shops under Closing Orders	1,140
Observations of shops as to weekly half-holidays	3,411
Inspections of shops	839
Infringements of Shops Acts	87
Notices requiring sanitary defects to be remedied:—	
Served	40
Complied	23

Legal Proceedings.—The following is a summary of legal proceedings taken during the year in connection with general sanitary administration :—

Acts, etc., under which Proceedings were taken	Number	Fined	Cautioned	To pay costs only	Dismissed	With-drawn	Amount of Fines and Costs
Shops Acts	87	53	22	7	2	3	£ 17 s. 3 d.
Public Health Act, 1875 (Sec. 94)	1	...	...	1	...	...	4 0
Public Health Act, 1925 (Sec. 72)	1	...	...	1	...	...	4 0
Housing Act, 1930	1	...	...	...	...	1	...
Cardiff Corporation Act, 1930... ..	7	6	...	...	...	1	3 5 0
Merchant Shipping Act, 1894 (Sec. 214, Sub-sec. 5) ...	46	37	5	1	1	2	61 11 0
Public Health Act, 1875 (Sec. 116 & 117) ...	4	2	2	...	...	2	7 0 0
Totals	147	98	27	10	3	9	£89 7 0

Disinfection.—Disinfection was carried out at 1,549 houses during the year, and 7,215 articles of bedding, clothing, etc., were removed to and disinfected at the Disinfection Station; 77 infected articles were destroyed by arrangement with or at the request of the owners.

Cleansing Station.—The total number of baths for scabies, pediculosis, etc., undertaken at the Cleansing Station was 553.

Public Mortuary.—Eighty-three bodies (59 males, 24 females) were admitted to the Public Mortuary and 35 post-mortem examinations were performed.

APPENDIX I.

STATISTICAL TABLES OF BIRTHS, DEATHS, COMMUNICABLE DISEASES, Etc.

TABLE I.

BIRTHS AND STILL-BIRTHS REGISTERED IN AND BELONGING TO CARDIFF, 1932.

Municipal Wards	Legitimate				Illegitimate				Totals	
	Live		Dead		Live		Dead		Live	Dead
	M.	F.	M.	F.	M.	F.	M.	F.		
Central	113	94	4	7	3	6	...	...	216	11
South	146	124	7	2	6	12	...	...	288	9
Cathays	122	132	15	9	2	5	...	...	261	24
Adamsdown	138	125	10	8	16	5	3	1	284	22
Riverside	76	77	8	3	6	4	...	...	163	11
Canton	125	105	6	4	6	6	...	1	242	11
Grangetown	114	115	7	9	2	3	...	...	234	16
Roath	92	119	3	6	1	2	...	...	214	9
Plasnewydd	105	90	7	4	1	6	...	...	202	11
Splott	179	173	7	12	5	7	...	...	364	19
Penylan	88	67	5	8	1	1	...	...	157	13
Llandaff	265	265	12	17	2	9	1	...	541	30
Gabalfa	161	132	9	10	7	6	...	...	306	19
Institutions, etc.	1	...	1	2	...	1	...	...	2	3
Totals	1,725	1,618	101	101	58	73	4	2	3,474	208

TABLE II.

SUMMARY OF REGISTERED BIRTHS (LIVE) BELONGING TO CARDIFF, 1932.*

	Legitimate		Illegitimate		Totals
	Male	Female	Male	Female	
Registered in Cardiff	1,725	1,618	58	73	3,474
Transferred to Cardiff	17	15	5	6	43
Totals	1,742	1,633	63	79	3,517

*Compiled from detailed weekly returns supplied by the local Registrars of Births and Deaths, duly corrected for inward and outward transfers. The figures differ slightly from those supplied by the Registrar-General, viz., Males, 1,799; Females, 1,704; Total, 3,503

TABLE III.

CAUSES OF DEATH AT VARIOUS AGES, 1932.*

CAUSES OF DEATH	ALL AGES			AGE PERIODS								
	M.	F.	Totals	Under 1 yr.	1-2 yrs.	2-5 yrs.	5-15 yrs.	15-25 yrs.	25-45 yrs.	45-65 yrs.	65-75 yrs.	75 yrs and upwards
Typhoid and Paratyphoid												
Fevers ...	1	1	2	...	...	...	...	...	1	1	...	...
Measles ...	6	4	10	2	4	4	...	...	...	...	...	...
Scarlet Fever ...	1	2	3	...	...	...	2	...	1	...	...	...
Whooping Cough ...	8	16	24	15	5	4	...	...	...	...	...	...
Diphtheria ...	5	5	10	1	...	4	5	...	...	...	...	...
Influenza ...	31	26	57	3	...	...	4	7	5	18	12	8
Encephalitis Lethargica ...	2	...	2	...	...	...	...	2	...	...	...	...
Cerebro-Spinal Fever ...	2	4	6	1	2	3	...	...	...	...	...	...
Tuberculosis of Respiratory												
System ...	147	88	235	1	1	...	8	44	119	58	4	...
Other Tuberculous Diseases	28	21	49	2	2	7	7	11	12	7	1	...
Syphilis ...	6	4	10	...	...	...	...	1	3	5	1	...
General Paralysis of the												
Insane, Tabes Dorsalis ...	9	2	11	...	...	...	...	1	...	9	1	...
Cancer, Malignant Disease	158	169	327	...	...	...	1	1	34	146	103	42
Diabetes ...	7	19	26	...	...	1	...	...	3	10	7	5
Cerebral Haemorrhage, etc.	29	51	80	...	...	...	...	...	2	26	28	24
Heart Disease ...	334	283	617	...	...	1	3	11	31	165	203	203
Aneurysm ...	12	1	13	...	...	...	...	...	2	9	2	...
Other Circulatory Diseases	70	69	139	1	...	...	...	...	1	27	51	59
Bronchitis ...	55	60	115	15	5	2	...	...	5	20	21	47
Pneumonia (All Forms) ...	77	72	149	35	22	8	4	...	17	26	22	15
Other Respiratory Diseases	15	8	23	...	1	3	...	1	3	7	5	3
Peptic Ulcer ...	17	6	23	...	...	...	...	2	7	11	3	...
Diarrhoea, etc. ...	23	24	47	26	4	3	3	...	1	4	2	4
Appendicitis ...	9	8	17	...	...	1	5	2	4	2	3	...
Cirrhosis of Liver ...	3	...	3	...	...	...	...	...	...	2	1	...
Other Diseases of Liver, etc.	3	8	11	...	...	...	...	...	3	2	4	2
Other Digestive Diseases ...	25	24	49	3	3	4	2	2	4	14	13	4
Acute and Chronic												
Nephritis ...	54	35	89	...	...	...	1	4	10	35	28	11
Puerperal Sepsis ...	...	4	4	...	...	...	...	1	3	...	...	...
Other Puerperal Causes ...	...	15	15	...	...	...	...	3	12	...	...	...
Congenital Debility, Pre- mature Birth, Malform- ations, etc. ...	89	56	145	141	2	1	...	...	1	...	...	...
Senility ...	23	62	85	...	...	...	...	...	...	...	17	68
Suicide ...	31	10	41	...	...	...	...	4	10	21	6	...
Other Violence ...	78	32	110	3	4	10	11	18	14	29	14	7
Other Defined Diseases ...	137	106	243	18	8	2	12	18	28	75	47	35
Causes ill-defined or un- known ...	2	1	3	...	1	...	...	...	...	...	1	1
All Causes	1,497	1,296	2,793	267	64	58	68	133	336	729	600	538

*Compiled from figures supplied by the Registrar-General.

TABLE IV.

DEATHS FROM VARIOUS CAUSES UNDER ONE YEAR OF AGE, 1932.*

Causes of Death	Under 1 Week	1—2 weeks	2—3 weeks	3—4 weeks	Total under 4 weeks	4 weeks —3 months	3—6 months	6—9 months	9—12 months	Totals
Measles ...	...	...	...	...	...	...	2	...	...	2
Whooping Cough ...	...	...	...	...	...	3	4	5	3	15
Diphtheria ...	...	...	...	...	...	...	...	...	1	1
Influenza ...	...	...	...	...	...	1	1	1	...	3
Tuberculosis of Nervous System ...	...	...	...	...	...	...	1	...	...	1
Tuberculosis of Intestines and Peritoneum ...	...	...	...	...	...	...	...	...	...	...
Other Tuberculosis ...	...	...	...	...	...	...	...	1	1	2
Syphilis ...	...	...	...	...	...	...	...	...	...	...
Meningitis ...	...	1	...	...	1	...	2	...	...	3
Convulsions ...	2	2	...	1	5	3	2	...	...	10
Bronchitis ...	...	...	1	3	4	3	4	3	1	15
Pneumonia ...	2	...	1	2	5	6	4	13	7	35
Other Respiratory Diseases ...	...	...	...	...	...	...	...	...	...	...
Inflammation of Stomach ...	...	...	...	...	...	2	1	...	...	3
Diarrhoea and Enteritis ...	...	2	3	...	5	10	5	6	...	26
Hernia, Intestinal Obstruction ...	...	...	...	...	...	...	...	...	...	...
Congenital Malformation ...	8	6	5	...	19	5	4	...	...	28
Congenital Debility ...	2	...	...	...	2	10	4	1	...	17
Premature Birth ...	56	13	3	3	75	2	...	...	...	77
Injury at Birth ...	4	1	1	...	6	...	...	...	...	6
Atelectasis ...	5	...	...	...	5	...	...	...	...	5
Icterus ...	1	...	...	...	1	...	...	...	...	1
Diseases of Umbilicus ...	...	...	1	...	1	...	...	...	...	1
Other Diseases of Early Infancy ...	2	2	...	1	5	1	...	...	...	6
Suffocation in Bed ...	1	...	...	...	1	1	...	...	...	2
Inattention at Birth ...	...	...	...	...	...	...	...	...	...	...
Other forms of Violence ...	...	...	...	...	...	...	...	...	1	1
Other Causes ...	...	1	...	...	1	1	4	1	...	7
All Causes ...	83	28	15	10	136	48	38	31	14	267
Percentage of Total Deaths under 1 year ...	31.1	10.5	5.6	3.7	50.9	18.0	14.2	11.6	5.2	...

Deaths of:—

Legitimate Infants ... 246

Illegitimate Infants ... 21

*Compiled from figures supplied by the Registrar-General.

TABLE V.

ANALYSIS OF AREA, POPULATION, BIRTHS, DEATHS UNDER ONE YEAR AND DEATHS FROM CERTAIN CAUSES, TOGETHER WITH BIRTH-RATES AND DEATH-RATES PER 1,000 IN THE WHOLE CITY AND IN MUNICIPAL WARDS, 1932.*

Municipal Wards, etc.	Acre- age Popula- tion	Live Births		Deaths under One Year		Enteric Fever		Measles		Scarlet Fever		Whooping Cough		Diphtheria		Diarrhoea, etc. (under 2 years)		Tubercu- losis: Respi- ratory		Tubercu- losis: Other Forms		Influenza		Respira- tory Diseases	
		Number	Birth-rate	Number	Deaths per 1,000	Number	Death-rate	Number	Death-rate	Number	Death-rate	Number	Death-rate	Number	Death-rate	Number	Deaths per 1,000	Number	Death-rate	Number	Death-rate	Number	Death-rate	Number	Death-rate
Central Lodging Houses, etc. ...	535	216	17.4	198	88	19	...	...	...	...	...	3	0.24	...	...	4	18.5	15	1.53	3	0.24	3	0.24	27	2.26
South Lodging Houses, etc. ...	1,073	288	21.8	181	69	20	...	3	0.23	...	...	1	0.07	1	0.07	1	3.4	4	1.74	2	0.15	3	0.23	1	2.12
Cathays Adamsdown Lodging Houses, etc. ...	338	261	14.6	198	57	15	...	...	...	...	...	...	...	1	...	...	3.8	11	0.61	2	0.11	...	...	...	1.39
Riverside ...	320	163	10.3	235	...	...	...	...	0.08	...	...	...	0.31	...	...	...	7.0	21	3.11	5	0.70	5	0.39	3	2.80
Canton ...	247	242	14.1	211	45	8	...	...	0.06	...	...	1	0.06	...	...	...	6.1	23	1.46	4	0.25	4	0.25	23	1.46
Grange-town ...	949	234	15.9	174	102	24	...	...	...	...	...	2	0.12	...	...	...	8.3	17	0.99	2	0.12	3	0.17	20	1.17
Road ...	754	214	13.4	205	75	16	...	...	0.07	...	...	3	0.20	...	...	...	8.5	12	0.81	4	0.27	10	0.68	23	1.56
Pleasnewydd ...	1,233	202	13.2	183	12.0	14	...	...	...	...	...	1	0.06	2	0.13	...	9.3	14	0.88	3	0.19	2	0.12	26	1.63
Spiont ...	1,912	364	18.1	231	82	30	...	...	...	...	...	...	0.16	2	0.16	...	4.9	12	0.78	4	0.26	4	0.26	17	1.11
Penylan ...	1,765	157	10.1	214	13	83	...	...	0.05	1	0.05	...	...	...	...	...	5.5	18	0.89	6	0.30	4	0.20	36	1.79
Llandaff ...	2,719	541	19.6	278	40	74	...	2	0.07	5	0.18	...	...	1	0.03	...	19.1	15	0.97	2	0.13	6	0.39	22	1.42
Gaballa ...	1,463	306	16.3	152	78	24	...	...	0.14	4	0.14	...	...	2	0.11	...	14.8	14	0.51	2	0.07	2	0.14	37	1.34
Institutions, etc. ...	...	45	...	36	...	...	...	...	...	...	...	...	...	...	...	...	...	2	0.75	5	0.27	2	0.11	16	0.85
Cardiff ...	13,628	3,517	15.8	2,793	76	268	...	...	0.01	3	0.01	23	0.10	10	0.04	29	8.2	234	1.05	48	0.21	55	0.25	340	1.53

*The statistics of births and deaths are compiled from weekly returns supplied by the local Registrars of Births and Deaths, duly corrected for inward and outward transfers.

TABLE VI.

NOTIFIED CASES OF ACUTE COMMUNICABLE DISEASES BY AGE AND SEX, 1932.

Diseases	Under 1 year		1-2 years		2-3 years		3-4 years		4-5 years		5-10 years		10-15 years		15-20 years		20-25 years		25-35 years		35-45 years		45-65 years		65 years and over		All Ages				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Totals		
Smallpox	1	1
Scarlet Fever ...	2	1	11	8	18	10	25	17	33	28	158	197	50	83	12	21	8	11	5	17	1	6	2	2	...	...	...	325	401	726
Diphtheria ...	1	5	10	4	5	11	16	15	21	18	92	128	38	43	7	21	4	13	5	19	2	9	...	4	...	2	201	292	493		
Enteric Fever ...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	2	1	1	2	...	...	...	1	...	...	...	...	6	3	9
Pneumonia ...	8	16	14	9	3	4	7	2	7	3	12	11	7	6	13	7	9	8	22	9	21	9	26	11	7	9	156	104	260		
Puerperal Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	6	...	17	...	7	...	1	...	...	...	...	32	32
Puerperal Pyrexia ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	21	...	21	...	6	...	...	...	...	...	...	52	52
Cerebro-Spinal Fever ...	2	...	...	1	1	1	1	2	...	...	1	1	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	7	5	12
Acute Poliomyelitis ...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	2	2	4
Acute Polioencephalitis ...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Encephalitis Lethargica ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	1
Dysentery ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	1
Ophthalmia Neonatorum ...	19	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	19	15	34
Erysipelas ...	2	2	...	1	...	...	...	...	...	...	1	...	...	1	1	...	...	1	1	3	3	3	3	17	7	4	3	29	21	0
Malaria ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	1	...	...	1	...	...	...	4	...	1

TABLE VII.

NOTIFIED CASES OF ACUTE COMMUNICABLE DISEASES IN MUNICIPAL WARDS AND CASES REMOVED TO HOSPITAL, 1932.

Municipal Wards, etc.	Smallpox	Scarlet Fever	Diph- theria	Enteric Fever	Pneu- monia	Puerperal Fever	Puerperal Pyrexia	Cerebro- Spinal Fever	Acute Polio- myelitis	Acute Polioen- cephalitis	Enceph- alitis Lethar- gica	Dysentery	Ophthal- mia Neon- atorum	Erysipelas	Malaria
Central	46	20	...	15	...	3	1	...	...	...	...	6	5	...
South	34	31	...	13	...	3	2	1	...	...	...	1	2	...
Cathays	58	22	...	15	5	3	1	...	...	...	...	2	6	...
Adamsdown	26	31	1	12	1	6	1	...	...	...	...	4	2	2
Riverside	54	10	1	7	6	2	...	...	...	...	...	2	...	1
Canton ...	1	42	13	...	14	1	4	1	...	...	...	...	...	...	...
Grangetown	48	41	1	7	2	5	...	1	...	...	...	2	5	...
Roath	35	36	...	7	...	1	...	...	...	...	...	4	5	1
Plasnewydd	34	37	1	29	1	3	...	...	...	...	...	4	4	...
Splott	83	59	...	19	3	3	...	...	...	...	...	1	2	...
Penylan	85	26	...	17	...	3	1	...	...	1	1	1	3	...
Llandaff	116	95	2	13	2	4	1	...	...	...	...	...	3	...
Gabalfa	52	32	1	14	4	...	...	...	...	...	...	4	2	...
Institutions	13	40	2	78	7	12	4	2	1	...	...	3	11	...
TOTALS ...	1	726	493	9	260	32	52	12	4	1	1	1	34	50	4
Cases removed to Hospital ...	1	614	490	6	8	11	3	9	1	...	...	1	...	5	...

APPENDIX II.

METEOROLOGICAL OBSERVATIONS TAKEN AT PENYLAN, CARDIFF, DURING 1932.

TABLE I.
BAROMETRIC PRESSURE AND RELATIVE HUMIDITY.

Month	Attached Thermo- meter (Mean)	Mean Barometric Pressure*		Hygrometer*		
		Uncorrected	Reduced to Mean Sea Level and Temp. 32° F.	Dry Bulb (Mean)	Wet Bulb (Mean)	Mean Relative Humidity
	°F.	Inches.	Inches.	°F.	°F.	%
January ...	53	29.970	30.065	44.0	42.8	92
February ...	48	30.282	30.492	38.1	35.9	83
March ...	49	29.760	29.987	40.4	38.2	84
April ...	52	29.590	29.784	44.5	42.1	82
May ...	58	29.700	30.034	50.4	48.1	85
June ...	66	29.922	30.074	58.2	54.0	75
July ...	69	29.767	29.901	59.6	57.3	88
August ...	75	29.975	30.101	62.1	59.7	84
September ...	66	29.770	29.922	56.0	54.3	88
October ...	61	29.540	29.708	48.8	46.9	80
November ...	56	29.904	30.088	44.5	43.1	88
December ...	54	29.860	30.050	42.2	40.8	90
	59	29.920	30.017	49.1	46.9	85

*From observations at 9 a.m. and 9 p.m. (G.M.T.)

TABLE II.
TEMPERATURE.

Month	Absolute Maximum	Absolute Minimum	Mean of Maximum	Mean of Minimum	Mean Temperature	Difference from Average (43 years)
	°F.	°F.	°F.	°F.	°F.	°F.
January ...	55	29	48.7	39.9	44.4	+ 4.5
February ...	52	26	43.4	33.9	38.7	- 1.6
March ...	55	24	48.4	34.2	41.3	- 1.1
April ...	58	33	50.4	39.1	44.7	- 1.7
May ...	64	32	56.4	45.2	50.8	- 1.9
June ...	76	42	66.5	50.2	58.3	+ 1.1
July ...	76	50	66.2	54.9	60.5	- 0.2
August ...	91	53	70.9	57.7	64.3	+ 4.2
September ...	74	39	61.9	50.6	56.3	± 0.0
October ...	60	33	54.9	43.7	49.3	- 1.0
November ...	56	35	48.5	41.1	44.8	+ 0.6
December ...	56	32	46.8	39.2	41.9	+ 0.8
	91	24	55.2	44.1	49.6	+ 0.3

TABLE III.

TERRESTRIAL RADIATION, UNDERGROUND TEMPERATURE, SOLAR RADIATION
AND SUNSHINE.

Month	Temperature				Bright Sunshine	
	Grass Minimum (Mean)	Underground (Mean)		Solar Maximum (Mean)	Total Duration	Difference from Average (24 years)
		1ft.	4ft. ⁷			
	°F.	°F.	°F.	°F.	Hours	Hours
January ...	36.3	43.4	45.9	66.9	45.7	— 6.6
February ...	29.0	39.1	43.8	73.1	77.0	+ 2.7
March ...	28.4	40.3	42.6	92.0	151.6	+ 35.5
April ...	33.6	45.7	45.5	103.5	132.4	— 37.4
May ...	41.6	54.9	49.3	104.9	110.2	— 95.9
June ...	45.6	59.9	54.1	120.5	242.2	+ 21.6
July ...	52.5	62.5	58.4	119.3	162.7	— 44.0
August ...	56.1	64.9	60.1	125.4	184.4	+ 0.7
September ...	48.1	59.0	59.8	106.1	132.6	— 9.9
October ...	40.7	50.7	54.5	94.7	122.4	+ 15.2
November ...	37.5	45.3	50.1	70.8	53.9	— 14.5
December ...	35.7	42.2	46.3	67.9	44.8	— 4.9
	40.4	50.6	50.8	95.4	1,459.9*	— 137.5

*=32.7% of possible duration and a daily average of 3.99 hours.

TABLE IV.

RAINFALL.

Month	Total	Difference from Average (43 years)	Greatest Fall in 24 hours*		Number of Rain-days (0.01 inch or more)	Duration
			Amount	Day		
	Inches	Inches	Inches			Hours
January ...	6.29	+ 2.30	1.25	5th	19	119.00
February ...	0.03	— 2.99	0.03	3rd	1	1.50
March ...	2.26	— 0.77	0.64	29th	14	45.25
April ...	4.13	+ 1.53	0.61	27th	23	84.00
May ...	5.09	+ 2.47	1.07	1st	20	143.75
June ...	1.58	— 1.03	1.00	30th	3	17.50
July ...	4.80	+ 1.89	1.04	16th	15	54.75
August ...	1.28	— 2.98	0.42	29th	7	25.00
September ...	5.35	+ 2.29	1.01	2nd	17	105.50
October ...	7.04	+ 2.19	1.09	20th	23	127.50
November ...	2.19	— 1.70	0.61	30th	18	61.00
December ...	2.48	— 2.16	0.59	31st	15	59.50
	42.52	+ 1.04	1.25	5th Jan.	175	844.25

*24 hours ended 9 a.m. (G.M.T.) next day.

APPENDIX III.

ATMOSPHERIC POLLUTION.

OBSERVATIONS MADE IN CARDIFF DURING 1932.

Month	Rain-fall (mm)	Grammes per Square Dekametre (Metric Tons per Hundred Square Kilometres)								
		Insoluble Matter			Soluble Matter		Total Solids	Included in Soluble Matter		
		Tar	Carbonaceous other than Tar	Ash	Loss on Ignition	Ash		Sulphates (SO ₃)	Chlorine (Cl)	Ammonia (NH ₃)
January ...	68	7	106	189	113	254	669	85	60	1
February ...	1	5	100	136	28	50	319	15	9	1
March ...	53	7	92	153	56	122	430	43	32	1
April ...	120	5	101	141	81	166	494	60	40	1
May ...	92	5	85	126	69	96	381	48	11	3
June ...	37	5	76	149	53	64	347	24	7	1
July ...	101	5	71	93	63	106	338	41	20	3
August ...	34	4	63	106	35	50	258	17	7	1
September ...	136	5	80	105	128	253	571	89	49	2
October ...	173	5	93	116	92	202	508	61	52	1
November ...	52	4	80	98	35	119	336	32	29	2
December ...	61	5	107	153	69	129	463	50	23	1
Total ...	928	62	1,054	1,565	822	1,611	5,114	565	339	18
Mean ...	77	5	88	130	68	134	426	47	28	1

ULTRA-VIOLET RADIATION.

OBSERVATIONS MADE IN CARDIFF DURING 1932.

Month				Mean Daily Radiation Units*	
				Penylan	City Hall
January ...	...	...	...	0.18	0.18
February ...	...	...	...	0.20	0.20
March ...	...	...	...	0.48	0.48
April ...	...	...	...	0.92	0.90
May ...	...	...	...	1.27	1.23
June ...	...	...	...	2.10	2.00
July ...	...	...	...	1.90	1.80
August ...	...	...	...	1.90	1.80
September ...	...	...	...	1.05	1.08
October ...	...	...	...	0.52	0.52
November ...	...	...	...	0.25	0.25
December ...	...	...	...	0.27	0.26

*Acetone-methylene blue standard.

APPENDIX IV.

BIRTH CONTROL CLINICS.

REPORT BY THE MEDICAL OFFICER OF HEALTH.

In compliance with the instruction of the Health Committee at their meeting of 17th February, I have given this matter careful consideration and have taken the opportunity afforded me, on the invitation of Dr. Severn, Medical Officer of Health, to visit the Birth Control Clinic at Pontypridd. I propose to deal with the subject under the following headings:—

- (1) The Desire for Knowledge of Methods of Contraception.
- (2) The Possibility of giving Effective Instruction.
- (3) Certain Public Health Arguments for and against Birth Control.
- (4) The Powers of Local Authorities and their Limitations.
- (5) Administrative Considerations.
- (6) The Cost of Establishing a Birth Control Clinic.

(1) *The Desire for Knowledge of Methods of Contraception.*—It is a fact that the medical officers at the clinics are very frequently asked for advice on this subject. There can be no question that a large number of married women are anxious to obtain reliable information about methods of preventing conception.

(2) *The Possibility of giving Effective Instruction.*—It is not claimed, I believe, even by those who advocate the establishment of birth control clinics, that their work is attended by a hundred per cent. of successes. Such a result could not be expected from the use of contraceptive appliances, which depend for their efficacy, unlike operative procedure, upon the co-operation of the individual, upon accurate fitting to persons of different anatomical structure and upon a great variety of social circumstances. It is claimed, however, that the proportion of successes is very high and such inquiries as I have been able to make bear this out.

The Manchester, Salford and District Mothers' Clinic for Birth Control have published a careful analysis of 1,212 cases attending their clinic from 5 to 1½ years before the date of inquiry. Of those who had been advised and who were ultimately traced, numbering 905, 624, or roughly 70 per cent., had avoided pregnancy. These, of course, include a certain number of women who were in any case unlikely to become pregnant, but the view of the inquirers is that among those women who adhered strictly to the methods advised by the clinic only 8 failures occurred, and they anticipate an even higher standard of efficiency as the result of the experience they have now acquired. This inquiry is set out in a report which is a very fair and moderate statement of the case. One would like however, to see the figures analysed and appraised by a competent statistician who would take into consideration the probability of the women escaping pregnancy during the period under review without contraceptive interference. Some of the figures given in this report support the contention that the proportion of women who deliberately or by negligence abandon contraception and who subsequently become pregnant is high. It should also be stated that many women are advised at these clinics to practise contraception only with the object of spacing out births and not of ceasing permanently to have children.

Apart from the experience of special clinics, it is my opinion that the recent rapid fall of the birth-rate among a large section of the population admits of no other valid explanation than that even the very imperfect information and crude methods now available to any person desirous of utilising them are effectively and markedly limiting conception.

It has been suggested that the housing conditions of a large section of the population would make it impracticable for birth control to be practised by them. This is true of

some of the measures used by those who are more comfortably circumstanced, but does not apply to the same extent to the methods taught and the appliances provided at birth control clinics.

(3) *Certain Public Health Arguments for and against Birth Control.*—In reporting upon this aspect of the problem, I do not intend to deal with any questions except those of which a medical man, who is also a public health official, may claim to have some special knowledge. In particular, the ethical side of the matter is quite outside the scope of this report. In relation to the main issue, we are not even primarily concerned with an upward, a stationary or a downward movement of the population, since any influence upon the public health of these movements can be offset by other hygienic and social measures. In any case, I have already pointed out to the Committee that in this city migration is still a greater factor affecting the discontinuance of the increase of population than the falling birth-rate.

What has to be considered is the effect upon health of the practise or non-practise of birth control. It has been maintained that the use of contraceptives is associated with damage to health. This, I believe, is a well-established fact in relation to many of the methods practised regularly by married couples. Some of these appear to have profound effects upon the nervous system, while others produce local damage which may lead to a deterioration of general health. It is claimed by the advocates of birth control clinics that their methods, if the advice is properly given and strictly followed, are not attended by such results. As to the validity of this claim, I am not in a position to arrive at a definitive conclusion.

On the other hand, it must be remembered that an alternative to birth control is being widely practised, but whether to an increasing extent it is difficult to determine. I refer to self-induced abortion. The prevalence of abortion is a serious problem, leading, as it does not infrequently, to death and still more commonly to permanent damage to the female pelvic organs. The Registrar-General's Annual Reports show that abortions account for about 11 per cent. of the deaths of women from causes associated with pregnancy and child-birth in England and Wales. Not all abortions, of course, are deliberately induced, but no serious student of the problem will deny that a very large proportion of them are. It has been maintained, although it is hard to get reliable proof, that unsuccessful attempts to procure abortion endanger the future course of the pregnancy so interfered with and that the risk associated with subsequent confinements is increased among women who have suffered from abortion. It is important that some means of diminishing self-induced abortion should be found, and contraception has been advocated as one such means.

It is hardly necessary to say that there are many diseases and deformities of women which make it undesirable that they should become pregnant. In such cases among married women, most medical men who are not deterred by any conscientious scruples consider it advisable to give advice about contraception.

(4) *The Powers of Local Authorities and their Limitations.*—In the first place it seems desirable to make it clear that the law does not hold a local authority responsible for the advice and treatment given to patients by their medical officers. The latter have to bear the onus of their own actions so far as they affect the health of the individuals who consult them, even though they are acting in a public capacity. It appears to follow, therefore, that the local authority cannot instruct their medical officers as to the advice and treatment which they are to give to individual patients at the clinics, except in so far as questions of expenditure are involved. If a medical officer is conscientiously of opinion that a certain line of action is desirable in the interest of a patient, the conditions of his admission to the Medical Register place the obligation upon him of giving advice to that effect, within the limits of his power and competence. On the other hand, it is impossible to give systematic advice on contraception at clinics not specially organised for the purpose.

The power of local authorities to provide facilities for instruction upon birth control are fully set out in Memorandum 153 and Circular 1208 of the Ministry of Health, which have already been before the Committee but which may be summarised here. The local

authority may, at a centre which it has provided for expectant and nursing mothers in terms of the Notification of Births (Extension) Act, 1915, provide also for the giving of advice on contraceptive methods to married women in attendance at such a centre, *if such information is considered necessary on medical grounds, but such advice should be limited to cases where further pregnancy would be detrimental to health and should be given at a separate session and under conditions which will not disturb the normal and primary work of the centre.* They make similar arrangements for all married women at a gynaecological clinic established under the Public Health Acts, with comparable limitations as regards the object of the instruction. A local authority has no power to establish birth control clinics as such. It seems clear that advice must be limited to married women who are in *bona fide* attendance at the clinics as expectant and nursing mothers or for the treatment of gynaecological diseases, and that birth control clinics provided by a local authority must admit only married women coming through these channels. Further, it would appear that such clinics are to be regarded as gynaecological clinics or annexes thereto, and in Circular 1208 it is stated that "the Minister does not consider it desirable that a gynaecological clinic should be established at a Maternity and Child Welfare Centre."

(5) *Administrative Considerations.*—In this connection the implications of the Ministry's pronouncements, as set out above, require very careful consideration. The Ministry consider that the provision for instruction in contraception can best be made at a gynaecological clinic, which a local authority may establish without the approval of the Ministry (so long as capital expenditure is not involved), but such a gynaecological clinic for all diseases of women should not be established at an existing maternity or child welfare centre. The Council have not so far provided a gynaecological clinic, unless the post-natal advice and care afforded to a growing extent at the ante-natal clinics to women recently confined who are not nursing mothers may be said to bring these clinics within that category. Post-natal clinics, specifically as such, are urgently required, and in the sense of the statement just made they might be regarded as partly gynaecological. They would be mainly, however, clinics for nursing mothers in terms of the Maternity and Child Welfare Act, 1918, and the Notification of Births (Extension) Act, 1915, and only as such would they figure in the reckoning for purposes of block grant. Moreover, the normal and appropriate place to hold them would be in the same premises as the ante-natal clinics, as their function is in direct continuity with the work of the latter. They could not, therefore, be used as birth control clinics.

Moreover, there ought to be no misapprehension about the work of birth control clinics. It is of a highly specialised character and, if it is to be carried out effectively, it must be done under conditions where it, too, is free from the disturbance of other activities.

Further, and this is a factor of prime importance, the effect of the direct involvement of the existing centres in the practice of birth control would probably alienate a large number, estimated at approximately 20 per cent., of the women and children whom they serve. This must be regarded as a state of affairs which would "disturb the normal and primary work of the Centre," to use the words of the Ministry's Memorandum. Finally, because of the inadequacy of the present clinic accommodation, there is no session available for the purpose at any existing centre except Gabalfa.

For these reasons, therefore, if the Council were to decide to establish a birth control clinic, it would be imperative, in my opinion, that it should be in separate premises, specially rented for the purpose, but regarded as an annexe to the existing clinics. From the latter, patients desiring advice would have to be recommended on medical grounds. The filtration of cases through the ordinary clinics would also ensure that only married women obtained admission to a birth control clinic. So long as no general gynaecological clinic were provided, the women admitted would be only those who had already borne children. In this connection it must be quite definitely understood that the establishment of birth control clinics, with the safeguards laid down by the Ministry, would certainly lead to a considerable influx of women to the existing clinics, an influx which would, for many years, counterbalance the anticipated decline in the number of confinements. The clinics giving ante-natal and post-natal advice would be chiefly affected and their overcrowding is so great at present that the staff cannot deal with the patients with proper

advantage to the women or satisfaction to themselves. The Committee have frequently been informed of this, and the Ministry's letter of 27th July last, drawing attention to the deficiencies in the Council's arrangements, has not so far been seriously considered, solely because of the difficult financial position at the present time. It is generally held that not more than 12 women should attend ante-natal clinics at any one session. The view of this Department is that, with proper organisation, about 16 patients may be satisfactorily dealt with. At the clinics run by this Department the numbers far exceed this figure, the average for 1931 being 23, a number which is sometimes greatly exceeded. Any proposal to provide birth control facilities would certainly force this question to the front immediately.

As regards personnel, I think that it will be obvious that there are cogent arguments in favour of the staffing of birth control clinics by married women. In such circumstances, if the Council decided to establish a birth control clinic, departure from the Council's general policy of excluding married women from employment would be necessary.

(6) *The Cost of Establishing a Birth Control Clinic.*—A weekly birth control clinic separately staffed in separate premises is estimated to cost as follows, on the assumption that no voluntary help would be available:—

				£	£
Equipment (non-recurring)	...	...	...		40
Annual Cost:					
Rent of premises	...	...	...	22	
Salaries (say)	...	...	...	150	
Sundry expenses (say)	...	...	...	20	
				—	192
Total	...	...	...	£232	

At the commencement a fortnightly session might be sufficient and the running cost would be proportionately reduced, but I am of opinion that the demand would rapidly make a weekly session necessary. If voluntary help were available, some saving on salaries might be made.

The cost of increasing the existing clinics cannot be separated from the consideration of the establishment of a birth control clinic. Relief of the present congestion would entail the opening of three new ante-natal and post-natal sessions per week at the following minimum cost:—

				£	£
Equipment (non-recurring)	...	...	...		45
Annual Cost:					
Rent of premises	...	...	...	70	
Salaries	...	...	...	610	
				—	680
Total	...	...	...	£725	

This latter cost should not be considered entirely, or even mainly, as a charge against advice on birth control. In my opinion, it is a cost which will have to be contemplated in the near future, whether birth control clinics are adopted or not, unless the Committee are prepared to discourage the attendance of women coming to the existing clinics for advice. As already said, however, this provision would be rendered immediately necessary by the attraction of new patients to the existing clinics which would follow the giving of advice on contraception.

APPENDIX V.

THE CENSUS, 26/27 APRIL, 1931.

REPORT BY THE MEDICAL OFFICER OF HEALTH.

From Part I of the Census volume for Glamorgan which was published in December, 1932, it is possible to make a detailed examination of the state of the population. The final population is now given as 223,589 (males 107,309, females 116,280) in place of 223,648 recorded in the Preliminary Report of June, 1931. The tables for Cardiff submitted below have been prepared by Mr. T. Chant from the data available in the Glamorgan volume.

Changes of Population in Cardiff and Certain other Areas.—The first point to be emphasised is the decline in the rate of increase of the population. This rate was 1·9 per cent. from 1921 to 1931, as compared with 9·8 per cent. between 1911 and 1921, the latter being calculated upon the population exclusive of the portion brought into the city in 1922, the former taking account of it. If the boundaries had not been extended in 1922, there would have been a substantial decline.

The following table shows the population of each great town in England and Wales over 200,000 in population and its rate of increase in the two last intercensal periods:—

TABLE I.

INCREASE OR DECREASE OF POPULATION IN LARGE TOWNS OF ENGLAND AND WALES.

	Population, 1931.	Percentage In- crease (+) or Decrease (—) of Population, 1921-1931.	Percentage In- crease (+) or Decrease (—) of Population, 1911-1921.
London (City and Adminis- trative County) ...	4,396,821	—2·0	—0·9
Birmingham ...	1,002,413	+8·7	+9·4
Liverpool ...	855,539	+6·3	+6·5
Manchester ...	766,333	+4·2	+2·3
Sheffield ...	511,742	+0·0	+6·6
Leeds ...	482,789	+4·2	+1·2
Bristol ...	396,918	+5·3	+5·6
Kingston-upon-Hull ...	313,366	+7·8	+3·2
Bradford ...	298,041	+2·4	—0·9
West Ham ...	294,086	—2·3	+4·1
Newcastle-upon-Tyne ...	283,145	+3·0	+3·1
Stoke-on-Trent ...	276,619	+3·4	+2·5
Nottingham ...	268,801	+2·4	+1·1
Portsmouth ...	249,288	+0·8	+5·9
Leicester ...	239,111	+2·1	+3·1
Croydon ...	233,115	+21·8	+12·5
Cardiff ...	223,589	+1·9	+9·8
Salford ...	223,442	—4·5	+1·2
Plymouth ...	208,166	—0·9	+1·2

It will be observed that the increase has been greater in Manchester, Leeds, Kingston-upon-Hull, Bradford, Stoke-on-Trent, Nottingham and Croydon than in the previous intercensal period, but that the increase has been decelerated, or reversed, in all the others. The greatest retardation is in the case of Cardiff, the only towns approaching it in respect of this change being Sheffield, West Ham, Salford and Plymouth. Cardiff is now the seventeenth town in size, having passed Salford and Plymouth, partly as the result of the boundary extension in 1922 and partly because of the decline of population in the two latter towns. On the other hand, the phenomenal growth of Croydon, associated with a change of area, has brought it for the first time among the towns over 200,000 in population and well above Cardiff.

For comparison with Cardiff, it is also interesting to observe the movement in certain other large towns of Glamorgan:—

TABLE II.

INCREASE OR DECREASE OF CERTAIN TOWNS IN GLAMORGAN.

	Population, 1931.	Percentage In- crease (+) or Decrease (—) of Population, 1921-1931.
Cardiff	223,589	+1·9
Swansea	164,797	+4·6
Rhondda	141,346	—13·1
Merthyr Tydfil	71,108	—11·3
Aberdare	48,746	—11·4
Pontypridd	42,717	—9·4
Gelligaer	41,043	—4·8
Port Talbot	40,678	+1·7
Barry	38,891	—0·1
Mountain Ash	38,386	—11·3
Caerphilly	35,768	—3·1

It will be noted that the population has fallen in all but Cardiff, Swansea and Port Talbot, the decline being pronounced in Rhondda, Merthyr, Aberdare and Mountain Ash. The increase of Swansea in the previous intercensal period was 9·4, mainly explained by an extension of boundaries which took place in 1918. The fact that a larger rate of increase is shown in Swansea than in Cardiff during the ten years just elapsed is no doubt due to the extensive rural or semi-rural area included by that extension, thus limiting its overflow of population.

The growth of the population living in certain areas in the immediate vicinity of Cardiff is in marked contrast with these figures, as shown in the following table:—

TABLE III.

INCREASE OF POPULATION IN AREAS CONTIGUOUS TO CARDIFF.

	Population, 1931	Percentage Increase, 1921—1931	Percentage Increase, 1911—1921
Cardiff Rural District ...	29,056	27·9	26·9
Parish of Whitchurch (included above) ...	12,733	69·3	24·3
Penarth Urban District ...	17,719	3·5	10·4
Civil Parish of Rumney ...	3,348	168·6	34·1

In a preliminary report submitted to Committee in July, 1931, it was shown that, when Cardiff's natural increase is compared with the actual, there has been a loss by migration of about 13,000 persons, of whom not less than 7,000 have moved into the surrounding areas, while the rest have gone further afield. The above table shows how the rural and suburban areas outside the city boundary have grown, in spite of the fact that the extension of 1922 absorbed a populous part of what is now known as Cardiff Rural District. The growth of Rumney and Whitchurch is especially notable. These areas are to all intents and purposes dormitories for a part of Cardiff's population.

Ward Populations.—The following table shows the acreage of the several wards of the city and their populations in 1931 and 1921, with their percentage increases or decreases:—

TABLE IV.

ACREAGE AND POPULATION OF MUNICIPAL WARDS.

Ward	Acreage (Land and Inland Water)	Population		Percentage Increase (+) or Decrease (—) of Population
		1931	1921	
Adamsdown ...	948	17,209	20,185	—14·7
Canton ...	249	17,273	19,066	— 9·4
Cathays ...	340	16,566	19,100	—13·3
Central ...	532	13,544	17,562	—22·9
Gabalfa ...	1,461	18,703	11,474	+63·0
Grangetown ...	925	15,403	16,817	— 8·4
Llandaff ...	2,731	27,762	14,020	+98·0
Penylan ...	1,760	14,146	12,595	+12·3
Plasnewydd ...	235	15,056	17,507	—14·0
Riverside ...	319	17,602	19,240	— 8·5
Roath ...	749	15,792	16,336	— 3·3
South ...	553	13,635	15,010	— 9·2
Splott ...	1,182	20,898	20,668	+ 1·1
Total ...	11,984	223,589	219,580	+ 1·9

Nine wards, viz., Adamsdown, Canton, Cathays, Central, Grangetown, Plasnewydd, Riverside, Roath and South, comprising most of the old city, have declined by an aggregate of 18,743 persons, while four, viz., Gabalfa, Llandaff, Penylan and Splott, have grown by 22,752. The bulk of this growth is in Llandaff (13,742) and Gabalfa (7,229) and is accounted for by the Corporation housing schemes. Llandaff is by far the biggest ward, both in acreage and population.

Age-Distribution.—The changes of age-grouping are interesting, although they are part of a national rather than a local movement. They are shown in the following table, both as actual numbers and percentages living at certain age-groups:—

TABLE V.

NUMBER AND PROPORTION OF THE POPULATION IN CERTAIN AGE GROUPS.

Age Groups— Years	1931		1921	
	Number	Per Cent.	Number	Per Cent.
0-5 ...	17,642	7·9	19,490	8·9
5-10 ...	20,501	9·2	20,768	9·5
10-15 ...	18,598	8·3	20,802	9·5
15-25 ...	39,677	17·8	42,022	19·1
25-45 ...	67,585	30·2	66,963	30·5
45-65 ...	44,812	20·0	39,343	17·9
65-75 ...	10,925	4·9	7,446	3·4
75 and upwards	3,849	1·7	2,746	1·2
Total ...	223,589	100·0	219,580	100·0

The population between 25 and 45 years of age represents about the same proportion of the total as in 1921, but only 43 per cent. are younger than 25, as compared with 47 per cent. in 1921, while those over 45 years of age constitute 27 per cent., as against 22 per cent. ten years ago. This is a manifestation of the ageing of the population which is taking place, partly as the result of the falling birth-rate and partly from the increasing expectation of life of the people.

Housing Conditions.—From the social and public health standpoint the Census information as to housing is of special importance and merits some detailed study. The two following tables give a summary of the position as to the number of houses and rooms, occupied and unoccupied, and the number of families and persons in occupancy, as compared with 1921:—

TABLE VI.

INCREASE OF DWELLINGS, ROOMS AND FAMILIES.

	1931	1921	Increase	
			Number	Per cent.
Structurally separate dwellings occupied ...	42,987	35,977	7,010	19·48
Structurally separate dwellings wholly vacant:—				
Furnished ...	266	716	139	19·41
Others ...	589			
Rooms occupied ...	248,521	217,400	31,121	14·31
Rooms unoccupied:—				
Furnished ...	2,335	5,114	1,610	31·48
Others ...	4,389			
Private families ...	54,820	47,358	7,462	15·76
Population in private families ...	212,852	207,841	5,011	2·41
Excess of private families over occupied dwellings ...	11,833	11,381	452	3·97

TABLE VII.
FACTORS IN RELATION TO DWELLINGS, ROOMS AND FAMILIES.

	1931	1921
Average number of:—		
Rooms per dwelling (occupied and vacant)	5.82	6.06
Private families per occupied dwelling	1.28	1.32
Rooms occupied per family	4.53	4.60
Persons per room	0.86	1.05
Persons per private family	3.88	4.39

The dwellings number 43,842, as compared with 36,693 in 1921, so that the net effect of new building, structural alterations, demolition and conversion to other uses has resulted in an increase of 7,149, or 19.5 per cent. Of the total, 855, or 1.9 per cent., were returned as vacant, exactly the same proportion as in 1921. Since 266 unoccupied houses were furnished, it may be assumed that the bulk of those available for occupation was represented by the 589 unfurnished and vacant.

Concurrently with the increase of 19.5 per cent. in houses, the number of families has grown by 7,462, or 15.7 per cent., so that the average number of families per occupied dwelling has fallen from 1.32 to 1.28.

The average number of rooms per structurally separate dwelling is now 5.82, showing a reduction of 0.24 from the average of 6.06 in 1921. The corresponding average for England and Wales in 1931 was 5.15.

In view of the repeated references which have been made to multiple tenancy in Cardiff in reports submitted during the past decade, the following analysis of the total private families* in the city is of interest:—

	<i>Number.</i>	<i>Per cent.</i>
Families living in single occupation of separate premises	32,393	59.1
Families living two to a dwelling	19,122	34.9
Families living three or more to a dwelling	3,305	6.0
Total	54,820	100.0

A summary of the distribution of private families in the city according to the number of rooms severally occupied is given below.

TABLE VIII.
DISTRIBUTION OF PRIVATE FAMILIES ACCORDING TO NUMBER OF ROOMS OCCUPIED.

Unit of Occupation (Rooms)	Private Families			
	Number, 1931	Increase or Decrease (—) 1921—1931	Distribution per cent.	
			1931	1921
1	1,445	153	2.6	2.7
2	9,360	99	17.1	19.6
3	6,032	1,820	11.0	8.9
4	9,581	1,124	17.5	17.9
5	11,029	3,739	20.1	15.4
6—7	14,582	1,012	26.6	28.6
8—9	2,183	— 324	4.0	5.3
10 and over	608	— 161	1.1	1.6
Total	54,820	7,462	100.0	100.0

*Single lodgers boarding separately being regarded as a family.

It will be seen that 30·7 per cent. of the families are content with, or are unable to command more than, the limited housing accommodation represented by units of 1, 2 or 3 rooms; 37·6 per cent. occupy 4 or 5 room units, and 31·7 per cent. larger houses. While there has been an increase in the numbers in all categories under 8 rooms, there has been a slight decline in the proportion housed at the lower extreme, a definite fall in the proportion occupying larger houses, and a noticeable increase in the proportion of families living in units of occupation of 5 rooms.

To contrast the numbers of "units of occupation" of various sizes, whether occupied by families as tenants or subtenants and regardless of the size of the house itself, with the numbers of "structurally separate dwellings" of corresponding size, Tables IX and X have been prepared. Unfortunately, the Census figures are not presented in such a way as to permit of identical classification of units of occupation and houses over 5 rooms in size.

TABLE IX.

DISTRIBUTION OF UNITS OF OCCUPATION OF DIFFERENT SIZES.

(For comparison with Table X).

Number of Rooms	Units of Occupation Inhabited by Individual Families*	
	Number	Per cent.
1—3 	14,538	28·1
4—5 	20,047	38·8
6—7 	14,304	27·7
8—9 	2,150	4·2
10 or more 	599	1·2
Total ...	51,638	100·0

TABLE X.

DISTRIBUTION OF DWELLINGS OF DIFFERENT SIZES OCCUPIED.

(For comparison with Table IX).

Number of Rooms	Structurally Separate Dwellings Occupied	
	Number	Per cent.
1—3 	1,627	3·8
4—5 	15,628	36·4
6—8 	23,903	55·6
9 or more 	1,829	4·2
Total ...	42,987	100·0

It is obvious that the units of occupation of 3 rooms or less exceed the number of houses of this size by 12,911, the number of houses of 4 and 5 rooms falls short by 4,419 of the units of occupation of this size, while larger houses exceed the demand by 8,679. It will be noted that single person families are excluded from Table IX, so that there is no fallacy arising from the inclusion of single lodgers in this comparison.

*Exclusive of units in the occupation of single person families.

Comparison between the numbers of houses of various sizes occupied by more than one family in 1931 and 1921 is brought out in the following table:—

TABLE XI.
STRUCTURALLY SEPARATE DWELLINGS OCCUPIED BY PRIVATE FAMILIES.

Dwellings occupied by	Year	1—3 Rooms	4—5 Rooms	6 or more Rooms	Totals	Percentage
1 private family ...	1931	1,612	13,703	17,078	32,393	75·3
	1921	786	8,827	16,198	25,811	71·7
2 private families ...	1931	15	1,863	7,683	9,561	22·3
	1921	12	1,386	7,706	9,104	25·3
3 or more private families ...	1931	—	62	971	1,033	2·4
	1921	3	70	989	1,062	3·0
Totals ...	1931	1,627	15,628	25,732	42,987	100·0
	1921	801	10,283	24,893	35,977	100·0

It will be observed that the proportion of houses occupied by more than one family has fallen from 28·3 to 24·7 per cent. When the smaller types of house are considered separately, it appears that, while the occupied houses of 3 rooms or under have more than doubled in number, the percentage of them occupied by more than one family, which has never been high, has fallen from 1·87 to 0·9. There has also been a slight improvement in the occupancy of 4 and 5 roomed houses, those occupied by more than one family having fallen from 14·2 to 12·3 per cent. and the proportion of houses of 6 rooms and over so occupied has fallen from 34·9 to 33·6 per cent. In this table a single lodger, boarding separately, is counted as a family.

From Table VI, it will have been noted that an increase of only 2·41 per cent. in the population in private families has been accompanied by an increase of 15·76 per cent. in the actual number of such families, and that the average size of family has been thereby reduced from 4·39 to 3·88, a decline of 11·6 per cent. This circumstance is no doubt due to the maintenance of a high marriage-rate, associated with a decline of the birth-rate. The following table shows the distribution of families by size and the effect of the changes upon the average density of persons in the rooms occupied.

TABLE XII.

DISTRIBUTION OF PRIVATE FAMILIES ACCORDING TO NUMBER OF PERSONS IN FAMILY.

Number of Persons in Family	Private Families				Rooms per Family		Persons per Room	
	Number, 1931	Increase or Decrease (—) 1921—1931	Distribution per cent.		1931	1921	1931	1921
			1931	1921				
1 ...	3,182	1,053	5·8	4·5	2·73	2·68	0·37	0·37
2 ...	10,942	3,158	20·0	16·4	3·86	3·54	0·52	0·57
3 ...	12,854	3,558	23·4	19·6	4·32	4·17	0·69	0·72
4 ...	10,652	2,006	19·4	18·3	4·80	4·75	0·83	0·84
5 ...	7,391	583	13·5	14·4	5·10	5·07	0·98	0·98
6—7...	7,023	—1,043	12·8	17·0	5·33	5·37	1·20	1·19
8—9...	2,079	—1,257	3·8	7·1	5·57	5·61	1·50	1·49
10 and over ...	697	— 596	1·3	2·7	5·80	6·02	1·86	1·80
Total ...	54,820	7,462	100·0	100·0	4·53	4·59	0·86	0·96

The percentage of families of five persons and upwards has fallen by 9·8, while the smaller sizes of family have consistently increased in proportion. The two, three and four person families together constitute 62·8 per cent., as against 54·3 in 1921. Large families, over 8 persons, which constituted 9·8 per cent. in 1921, now form only 5·1 per cent.

The average unit of occupation (rooms per family) has fallen from 4·59 to 4·53, i.e., by 1·3 per cent., as against the fall of 11·6 per cent. in the average size of family already mentioned, so that the average number of persons per room has declined from 0·96 to 0·86. While this represents a general improvement in housing density, closer examination of Table XII reveals some disquieting features. From the last two columns it will be seen that the average number of persons per room in families up to and including four persons has declined; the reverse is the case for families of 6 persons or over. For approximately 9,800 families of larger size, therefore, the average congestion in houses would appear to be worse than it was ten years ago. In considering these figures, however, in comparison with the position of the smaller families, it must be remembered that larger families usually have a greater proportion of young children whose distribution is an easier problem and, provided that their houses are not unreasonably small, separation of the sexes at higher ages can be more easily carried out with the same average number of persons per room as would create serious difficulty for the smaller family. The reduction of the average size of family has, therefore, created new problems in housing which necessitate a reduction in density of occupation, part of which has taken place among the families of smaller size, during the last ten years. The increasing proportion of young married couples with one child, or even none, and their correspondingly limited housing requirements which may be met either by small houses or, as they often prefer, joint occupancy of a bigger house with one or other of their parents, point to the need for an elasticity in the type and size of house provided in the future, which was not anticipated when the first housing schemes were promoted.

It is possible on the basis of the standard of overcrowding adopted by the Registrar-General of more than two persons to a room—a standard which he is again careful to point out as provisional and having no claim to infallibility—to apply a further test of housing conditions. Table XIII shows the number and proportion of families and persons living under such conditions, only part of the corresponding information being available for 1921.

TABLE XIII.

NUMBERS AND PROPORTIONS SCHEDULED IN THE "OVERCROWDED" CATEGORY.

	1931	1921
Private families with density of more than 2 persons per room ...	1,690	—*
Percentage to total private families	3·08	—*
Population in such families	11,487	17,246
Percentage to total private family population	5·40	8·30

It will be seen that 1,690, or 3·08 per cent., of the families in Cardiff are living more than two persons to a room. The population in such families has declined, however, from 8·30 to 5·40 per cent. of the total population in private families, now numbering 11,487, but has not yet reached the lower percentage of 4·8 recorded for the unextended city in 1911.

*Not available.

Finally, when Cardiff and its neighbourhood are compared generally with the other areas in Glamorgan, Cardiff is found to have the largest number of families per occupied dwelling (1·28), Penarth also being relatively congested with 1·21. On the other hand, the percentage increase of 19·5 in the number of dwellings is much lower than in some areas, especially certain smaller urban districts. The corresponding figure for Penarth is 22·3. Among the places with the best housing conditions, as measured by the average number of persons per room, is Cardiff Rural District, with 0·71, as compared with 0·86 for the City of Cardiff.

PORT SANITARY SERVICE.

I.—SHIPPING ENTERING THE PORT.

The following table (compiled from information kindly supplied by H.M. Collector of Customs) shows the annual number of arrivals of vessels and tonnage since 1923:—

Year	NUMBER OF ARRIVALS			TONNAGE		
	From Foreign	Coastwise*	Totals	From Foreign	Coastwise	Totals
1923	3,282	5,026	8,308	3,961,631	2,343,827	6,305,458
1924	3,424	5,145	8,569	3,689,057	2,352,124	6,041,181
1925	3,405	4,686	8,091	3,399,249	1,920,546	5,319,795
1926	2,204	3,517	5,721	2,208,168	1,218,551	3,426,719
1927	3,451	5,847	9,298	3,593,633	3,013,405	6,607,038
1928	3,205	4,530	7,735	3,389,525	1,695,890	5,085,415
1929	3,531	4,601	8,132	3,652,185	1,891,215	5,543,400
1930	3,210	4,368	7,578	3,182,124	1,820,183	5,002,307
1931	2,433	4,271	6,704	2,467,542	1,689,505	4,157,047
1932	2,089	4,401	6,490	2,337,218	1,702,412	4,039,630

The number and tonnage of vessels entering the port (which includes Penarth) inspected by officers of the Port Sanitary Authority during 1932 are set out below:—

Ministry of Health Table A.

		Number	Tonnage	Number Inspected by		Number reported defective	Number of Vessels on which defects were remedied	Number of Vessels reported as having or having had during the voyage infectious disease on board
				Medical Officer	Sanitary Inspector			
From Foreign	Steamers ...	1,769	2,148,393	36	1,769	208	205	16
	Motor ...	115	40,963	4	115	1	1	2
	Sailing ...	171	23,476	...	171	3	2	...
	Fishing ...	18	10,176	...	18	...	...	...
Total Foreign ...		2,073	2,223,008	40	2,073	212	208	18
Coastwise	Steamers ...	1,905	1,347,565	12	1,905	119	116	6
	Motor ...	200	71,333	...	200	1	1	...
	Sailing ...	101	6,880	...	101	...	...	...
	Fishing ...	420	48,113	...	420	...	...	...
Total Coastwise...		2,626	1,473,891	12	2,626	120	117	6
Total Foreign and C'stwise		4,699	3,696,899	52	4,699	332	325	24

*Including tugboats, sand barges, pleasure steamers, etc.

The following table shows the number of vessels entering the port which were dealt with by the Department each month during 1932:—

Month	From Foreign	Coastwise	Totals
January	1 2	198	380
February	162	216	378
March	178	229	407
April	176	206	382
May	186	198	384
June	201	226	427
July	188	212	400
August	174	221	395
September	154	226	380
October	150	239	389
November	169	238	407
December	153	217	370
Totals	2,073	2,626	4,699

The nationalities of the several types of vessels entering the port which were dealt with by the Department during 1932 are shown in the following table:—

Nationality	Steam	Motor	Sailing	Totals
American	4	...	...	4
Belgian	20	...	...	20
Brazilian	3	...	...	3
British	2,930	202	94	3,226
Danish	91	1	...	92
Dutch	61	44	...	105
Egyptian	4	...	...	4
Esthonian	21	...	...	21
Finnish	14	1	2	17
French	171	26	166	363
German	33	2	...	35
Greek	87	...	...	87
Hungarian	3	...	...	3
Irish Free State	121	15	9	145
Italian	53	2	...	55
Japanese	19	...	...	19
Latvian	17	1	...	18
Norwegian	160	12	1	173
Panamanian	7	...	...	7
Portuguese	17	...	...	17
Roumanian	5	...	...	5
Spanish	166	...	...	166
Swedish	82	9	...	91
Yugo-Slavonian	23	...	...	23
Totals	4,112	315	272	4,699

II.—CHARACTER OF TRADE.

Passenger Traffic.—The passenger traffic at the port is casual and small in volume and cannot be classified in the form prescribed by the Ministry of Health (*Table B*). The numbers of inward and outward passengers were 317 and 68 respectively, all of whom travelled by cargo vessels.

Cargo Traffic.—The principal imports are iron ore, pitwood, fruit, potatoes, onions, grain, flour, sugar and other provisions. The principal exports are coal, coke, patent fuel and flour. Amongst the countries and places with which the port principally trades may be mentioned Spain, France, Portugal, Italy, Norway, the Baltic Ports, United States of America, Argentina, Brazil, Canada and North Africa.

The following figures as to imports and exports annually since 1923 have kindly been supplied by the Chief Docks Manager:—

Year	Imports (tons)	Exports (tons)
1923	2,183,601	12,610,305
1924	2,141,486	11,367,604
1925	1,940,836	9,798,810
1926	2,003,654	4,358,411
1927	2,073,680	10,188,499
1928	1,730,940	8,970,143
1929	1,981,165	10,144,026
1930	1,711,970	8,963,328
1931	1,451,436	7,543,488
1932	1,185,010	6,944,230

III.—WATER SUPPLY.

The water supply for the port and shipping is derived entirely from the Cardiff Corporation supply by means of hydrants installed at convenient points.

During the year, 113 samples of drinking water from ships were submitted to the Cardiff and County Public Health Laboratory for bacteriological examination, the results being as follows:—

Satisfactory	...	...	...	84
Moderate purity	...	...	...	18
Doubtful purity	...	...	...	2
Contaminated	...	...	...	9
Total	...	...	...	113

Eleven notices were served on the masters of vessels having water which was contaminated or of doubtful purity on board, and in each instance the tanks were emptied, cleansed and refilled at this port.

IV.—INFECTIOUS DISEASE, ETC.

Detection of Infectious Disease.—Cases of infectious disease are reported to inspectors on arrival at the port. Warning messages are sometimes received from Lloyd's signal station at Barry Island, but there is no arrangement for receiving wireless intimation of approaching cases of infectious disease. The nearest receiving station for wireless messages is at Milford Haven—over 100 miles from Cardiff.

The usual inquiries were made during the year as to the number of vessels carrying wireless installations (excluding vessels under 500 net registered tons), the results of which are as follows:—

	Vessels arriving		Totals
	From Foreign	Coastwise	
With Wireless	823	439	1,262
Without Wireless	405	195	600
Totals	1,228	634	1,862

The following tabular statement shows the percentage of vessels carrying wireless installations (excluding vessels under 500 net registered tons) each year since inquiries have been made:—

Year	From Foreign	Coastwise	All Arrivals
1926	67·3	52·1	63·9
1927	75·6	74·8	75·4
1928	78·6	67·0	75·4
1929	74·8	68·8	73·2
1930	69·9	72·0	70·5
1931	71·1	77·2	72·9
1932	67·1	69·2	67·8

From the above tables it will be seen that the proportion of vessels arriving at this port with wireless installations is not increasing. Obviously, if advance messages by wireless as to the state of health of approaching vessels could be obtained, it might be possible to effect a very material saving in staff time, since it would be unnecessary for officers to await the arrival at the locks of all vessels on the chance of some matter of serious epidemic consequence being found. During the year the shipping agents were approached with a view to establishing an experimental system of this kind, but difficulties were raised which appear to be insuperable at the present time.

In spite of the failure of these negotiations it was felt that the decline of trade at Penarth Dock did not justify the maintenance of boarding inspectors there and, when the occasion arose as the result of the retirement of one of the assistant inspectors, an arrangement was made for receiving reports on health from customs officers by the kind co-operation of H.M. Collector of Customs and Excise. This variation of the system came into force on 6th July, 1931, and has proved satisfactory in the circumstances obtaining at present at Penarth. The port sanitary staff was thus reduced by one assistant inspector. It may be added that, by reorganisation and rearrangements of this kind, the total number of port inspectors has been reduced from 11 in 1924 to 8 at the end of 1932. The great increase of work entailed by the operation of the Public Health (Deratisation of Ships) Regulations, 1929, has been undertaken by this reduced staff with the help of one deratisation officer. It may be mentioned that Cardiff carried out more deratisations than any other port in England and Wales, except London, in 1931 (the last year for which information is available) and that the whole cost is borne by the shipowners.

Method of Dealing with Infectious Disease.—The method of dealing with cases of infectious disease arriving at the port has been fully explained in the reports for 1930 and previous years.

Disinfection.—Infected quarters on board vessels are fumigated by officers of the Port Sanitary Authority. Bedding, clothing and effects are removed to the Corporation Disinfecting Station, where they are disinfected by steam. Articles of clothing to the number of 175 were disinfected during the year, and 1,313 verminous or infected beds were destroyed.

Scabies.—During the year, 52 seamen suffering from scabies were treated at the Corporation Cleansing Station.

Bugs.—Constant attention has been given during the year to the eradication of bugs. Twelve vessels were reported as being verminous, and, upon inspection being made, notices were served on the masters, requiring them to take steps to eradicate bugs. In most cases berths, etc., were sprayed with a vermicide, and in others in which there was not time for action supplies of vermicide were taken to sea. In no case was fumigation carried out for this purpose only.

Venereal Diseases.—Leaflets in various languages relating to the facilities for treatment at the port are distributed by the inspectors on arrival of vessels. The treatment

of *bona fide* seamen suffering from venereal diseases is undertaken at a treatment centre at the Royal Hamadryad Seamen's Hospital. Although the centre is mentioned here, it forms part of the general scheme of the Cardiff City Council for the diagnosis and treatment of venereal diseases and is not an integral part of port sanitary administration. The following tabular statement shows the number of cases dealt with, the number of attendances and the aggregate number of in-patient days each year since 1923:—

Year	Persons attending at the Centre for the First Time					Total Attendances	Aggregate Number of In-patient Days
	Syphilis	Soft Chancre	Gono-rrhoea	Conditions other than Venereal	Totals		
1923	352	138	297	34	821	13,704	3,722
1924	221	120	249	25	615	16,212	2,697
1925	200	110	291	15	616	16,008	3,104
1926	197	93	256	19	565	12,702	2,536
1927	261	86	277	16	640	13,995	2,426
1928	205	83	344	14	646	15,347	3,195
1929	239	96	348	21	704	15,027	2,093
1930	235	112	367	17	731	12,670	1,639
1931	176	84	209	18	487	9,853	1,372
1932	198	95	297	19	609	10,004	1,707

Twenty-six cases of venereal disease were reported to inspectors and recommended for specialist treatment at the centre.

Bacteriological Examinations.—Examinations of rats for the detection of plague, of swabs for diphtheria and of other specimens (blood, sputum, etc.) for the diagnosis of disease are carried out at the Cardiff and County Public Health Laboratory.

Cases of Infectious Disease landed from Vessels.—The following table shows the nature of 18 cases of notifiable infectious disease which were landed from vessels during the year:—

Ministry of Health Table C.

Disease	Number of Cases during 1932		Number of Vessels concerned	Average Number of Cases for previous 5 years
	Passengers	Crew		
Scarlet Fever...	—	1	1	0·2
Enteric Fever...	—	4	3	2·8
Dysentery ...	—	2	2	1·8
Malaria ...	—	7	5	11·2
Tuberculosis ...	—	4	4	10·8

These were dealt with as follows:—

Disease			Admitted to City Isolation Hospital	Admitted to Royal Hamadryad Seamen's Hospital	Allowed to return Home	Treated aboard Ship	Totals
Scarlet Fever	...	...	1	—	—	—	1
Enteric Fever	...	...	4	—	—	—	4
Dysentery	...	...	2	—	—	—	2
Malaria	...	...	—	4	—	3	7
Tuberculosis	...	...	—	3*	1	—	4
Totals			7	7	1	3	18

*One of these was subsequently transferred to the City Lodge Hospital.

In addition to the above-mentioned cases, two cases of measles (non-notifiable) and one suspected case of enteric fever were landed from vessels and treated at the City Isolation Hospital.

Other Cases of Infectious Disease.—Twenty-six other cases of infectious disease were dealt with by the port sanitary staff which were ascertained to fall properly within the province of urban administration, and were referred to the districts to which they belonged, as follows:—

Disease				Cardiff	Barry	Penarth	Totals
Malaria	...	...	...	3	6	1	10
Pneumonia	...	...	...	1	—	—	1
Tuberculosis	...	...	...	13	1	—	14
Chickenpox	...	...	...	1	—	—	1
Totals				18	7	1	26

Cases of Infectious Disease occurring on Vessels during the Voyage but disposed of prior to Arrival.—Eleven cases of infectious disease were reported to have occurred on 9 vessels during the voyage and were disposed of prior to arrival, as follows:—

Ministry of Health Table D.

Disease	Number of Cases during 1932		Number of Vessels concerned	Average Number of Cases for previous 5 years
	Passengers	Crew		
Smallpox ...	—	2	1	0.4
Enteric Fever ...	—	5	5	2.6
Tuberculosis ...	—	4	3	2.0

Psittacosis.—Thirty-five parrots were dealt with under the Parrots (Prohibition of Import) Regulations, 1930, with the object of preventing the introduction of psittacosis.

V.—MEASURES AGAINST RODENTS.

During 1932, 121 deratisation certificates and 411 exemption certificates, a total of 532, were issued in accordance with the provisions of the Public Health (Deratisation of Ships) Regulations, 1929, as compared with 195 deratisation certificates and 407 exemption certificates, a total of 602, issued during 1931. The method of deratisation employed was fumigation by sulphur dioxide in 106 instances and by hydrocyanic acid gas in 15 instances. In one instance deratisation was carried out by trapping but no certificate was issued.

As the international campaign against rodents gathers force, a reduction in the number of rats infesting ships is to be expected. In the course of time this ought to lead to considerable increase in the proportion of exemptions from fumigation granted to masters on request for inspection with a view to certification. It is therefore of interest to examine the quarterly proportion during the past three years, as shown in the following table:—

	Deratisation Certificates		Deratisation Exemption Certificates		Totals
	Number	Percentage	Number	Percentage	
1930 :—					
January to March ...	72	35	136	65	208
April to June... ..	40	32	85	68	125
July to September ...	67	40	100	60	167
October to December ...	57	37	99	63	156
Totals ...	236	36	420	64	656
1931 :—					
January to March ...	51	36	92	64	143
April to June... ..	63	41	92	59	155
July to September ...	43	31	97	69	140
October to December ...	38	23	126	77	164
Totals ...	195	32	407	68	602
1932 :—					
January to March ...	45	32	95	68	140
April to June	13	11	111	89	124
July to September ...	27	23	88	77	115
October to December ...	36	24	117	76	153
Totals ...	121	23	411	77	532

It will be seen that since the third quarter of 1931, with the exception of the first quarter of 1932, there has been an increase generally in the proportion of exemptions, which constituted about two-thirds of all certificates in 1930 and more than three-quarters in 1932.

Ministry of Health Table G.

PARTICULARS RELATING TO PLAGUE "INFECTED" OR "SUSPECTED" VESSELS ARRIVING IN THE PORT DURING 1932.

Name of Vessel	Date of Arrival	Whether "infected" or "suspected"	Methods of Rat Destruction employed	Number of Dead rats recovered	Whether a Certificate of Deratisation was issued	Remarks
1.	2.	3.	4.	5.	6.	7.
—	—	—	—	—	—	—

Ministry of Health Table H.

MEASURES OF RAT DESTRUCTION ON VESSELS FROM PLAGUE INFECTED PORTS (OTHER THAN THOSE INCLUDED IN TABLE G) ARRIVING IN THE PORT DURING 1932 AND NUMBER OF CERTIFICATES ISSUED IN RESPECT OF SUCH VESSELS.

Total Number of Vessels arriving from plague infected Ports	Number of such Vessels fumigated by SO ₂	Number of Rats killed	Number of such Vessels fumigated by HCN	Number of Rats killed	Number of such Vessels on which trapping, poisoning, etc., were employed	Number of dead Rats recovered	Number of such Vessels on which measures of Rat destruction were not carried out	Number of Fumigation Certificates issued on Form "Port 11"		Number of other Certificates issued
								Deratisation	Exemption	
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
—	—	—	—	—	—	—	—	—	—	—

Ministry of Health Table I.

MEASURES OF RAT DESTRUCTION ON VESSELS (OTHER THAN THOSE INCLUDED IN TABLES G AND H) AND NUMBER OF CERTIFICATES ISSUED IN RESPECT OF SUCH VESSELS DURING 1932.

Number of Vessels fumigated by SO ₂	Number of dead Rats recovered	Number of Vessels fumigated by HCN	Number of dead Rats recovered.	Number of Vessels on which trapping, poisoning, etc., were employed	Number of dead Rats recovered	Number of Certificates Issued on Form "Port 11"		Number of other Certificates issued
						Deratisation	Exemption	
1.	2.	3.	4.	5.	6.	7.	8.	9.
106	2,969	15	756	1	21	121	411	—

*Form Port 11 is issued only by the Medical Officers of Health of Ports approved by the Minister of Health for the issue of Deratisation and Deratisation Exemption Certificates in accordance with the provisions of Article 28 of the International Sanitary Convention of 1926.

Two notices were served under the Rats and Mice (Destruction) Act, 1919, in respect of vessels which, upon inspection, revealed gross rat infestation, notwithstanding that valid deratisation certificates were produced. One of these vessels was dealt with by the rat-catcher, but a deratisation certificate was not issued. Fumigation was carried out in the case of the other vessel, and a new deratisation certificate was issued.

Advice as to rat-proofing of vessels is given whenever opportunity offers (e.g., during the carrying out of repairs). To prevent transit of rats between ships and the shore, the use of rat-guards on mooring ropes and the tarring of ropes and gangways are insisted upon, and gangways are raised at night-time where possible.

Systematic visits are paid by port sanitary inspectors to quays, wharves and warehouses in the vicinity of the docks, and, when necessary, responsible owners and occupiers are advised as to the best practical means of eradicating rodents. The laying of baits around the docks and in adjacent premises is supervised by the inspectors. In most instances warehouses are reasonably rat-proof, possessing concrete floors and iron doors. Rat poison (barium carbonate) is sold by the Department at cost price, the amount sold during the year being 14 $\frac{3}{4}$ lb. In all, 124,219 baits were laid in and around dock premises during the year, and approximately 8,432 rats and 3,284 mice were found dead as a result of these measures.

Rats caught in ships and on quays and wharves, in warehouses, etc., and rats found dead after fumigation of vessels are submitted to the Cardiff and County Public Health Laboratory for examination for the detection of plague. During the year, 359 rats were so submitted, i.e., 16 caught in ships, 6 caught in warehouses, etc., and 337 from ships after fumigation. Thirty-nine rats (included in the number examined for the detection of plague) were submitted to the Department of Zoology of the National Museum of Wales for identification and classification.

Altogether, approximately 12,282 rats were destroyed during 1932; of these, 21 were caught in ships, 3,725 were found dead on ships after fumigation, and 104 were caught and 8,432 were found dead in and around dock premises.

VI.—HYGIENE OF CREWS' SPACES, ETC.

During the year, 4,699 vessels, with a tonnage of 3,696,899, were inspected on arrival, or as soon thereafter as practicable. The number of persons in the crews carried by these vessels was 74,481. In addition, 4,867 re-inspections of ships in dock were made. Three informal notices were served and 332 verbal orders were given to masters and others in connection with nuisances and sanitary defects.

Ministry of Health Table J.

CLASSIFICATION OF NUISANCES.

Nationality of Vessel	Number inspected during 1932	Defects of original construction		Structural defects through wear and tear		Dirt, vermin and other conditions prejudicial to health	
		Found	Remedied	Found	Remedied	Found	Remedied
British	3,226	—	—	33	27	212	212
Other Nations ...	1,473	1	1	44	34	115	114

VII.—FOOD INSPECTION, ETC.

Imported Foodstuffs.—The quantities of various kinds of foodstuffs imported during the year were as follows:—

Description	Tons	cwt.	Bags	Bales	Barrels	Boxes	Miscellaneous
Almonds	140	...
Apples	1,876	...	102,612	744	...
Apple Juice	57	517	...
Bacon	8,275	...	...	...
Barley, Pearl	535	...	...	...	...
Biscuits	9	87 skips
Butter	3,826	...
Carraway Seeds	5	...	...	...
Catchup	550	...
Cheese	39,506	...
Cod-liver Oil	6	1 drum
Confectionery	210	497	150 pails
Cream, Canned	6,571	...
Eggs	270	...
Fat, Edible	176	527	...
Fish, Canned	2,752	...
Fish, Dried	10	...	...	...
Fish, Fresh ...	6,544	12	...	...	...	...	...
Fish, Salted	132	...	...
Flour ...	2	0	39,514	...	...	...	...
Fruit, Canned	34,842	...
Fruit, Dried	26,534	...
Fruit, Fresh	3,373	...	38,244	299,810	1,329 tubs
Fruit, Preserved	32	...
Fruit, Pulp	865	...	...
Glucose	265	...	...
Herbs	5	...	...	...
Hops	2	...	...	...
Lard	128,560	...
Lemon Juice	5	...	200 demi-johns
Macaroni	6,345	...
Malt	200	...	...	...	...
Margarine	8,815	80 pails
Meat, Canned	11,734	...
Meat, Preserved	35	...
Meat, Salted	421	...	...
Milk, Canned	45	232,979	...
Milk Powder	471	...
Nuts	1,225	...	...	...	...
Oats, Rolled	734	...	...	42,645	...
Olive Oil	80	1 drum
Onions ...	447	0	66,445	...	...	77,875	...
Peas and Beans	14,430	...	...	...	...
Potatoes ...	8,121	14	737,233	...	220	8,037	123,336 baskets
Provisions, Canned	330	...
Rice	13,896	...	...	...	...
Salt	128	...	...	...	...
Semolina	20	...
Sugar ...	28,227	0	9,324	...	...	...	...
Syrup	20	...
Tapioca	50	...
Tomatoes, Canned	93,093	...
Tomatoes, Fresh	29,932	...
Vegetables, Canned	6,488	...
Vegetables, Dried	110	...	...	...	...
Vegetables, Fresh ...	25	0	19,366	...	69	7,979	237 baskets
Vegetables, Salted	343	...	...
Wheat ...	124,231	0	...	...	...	...	...
Wheat Products	8,499	...
Wine	28	9	...
Yeast, Dried	41	...

Imported Meat.—In addition to the foodstuffs referred to above, five cargoes of frozen meat were imported, the quantities being as follows:—

Quarters of beef	...	...	3,911
Pieces of beef	...	...	4,951
Boneless beef	...	...	208 bags
Beef offal	...	...	150 bags
Carcases of mutton	...	...	7,451
Haunches of mutton	...	...	7,228
Carcases of lamb	...	...	67,843
Carcases of veal	...	...	50
Sides of veal	...	...	202
Carcases of pork	...	...	678
Crates of rabbits	...	...	1,750

Public Health (Imported Food) Regulations, 1925.—The total quantity of food withheld from human consumption during the year was 843 tons 10 cwt. 101 lb.

Nineteen samples were submitted to the Public Analyst for analysis under the Public Health (Imported Food) Regulations, comprising:—

Apricots, Dried	...	...	...	1
Black Currants	...	...	...	1
Fruit Pectin	...	...	...	1
Lemon Juice	...	...	...	1
Raisins	...	...	...	12
Sugar	...	...	...	1
Sultanas	...	...	...	1
Vegetable Fat	...	...	...	1
Total				19

All these samples were reported to be genuine or to contain preservatives within the limits laid down by the regulations.

Public Health (Imported Milk) Regulations, 1926.—No fresh milk was imported during the year.

Public Health (Preservatives, etc., in Food) Regulations, 1925-27.—Five samples of food were submitted to the Public Analyst for analysis as to the presence of preservatives. These samples, all of which were reported to be free from preservatives or to contain preservatives within the prescribed limits, were as follows:—

Apples, Dried	...	...	...	1
Black Currant Pulp	...	...	...	1
Raisins	...	...	...	2
Raspberry Pulp	...	...	...	1
Total				5

Bacteriological and Chemical Examinations.—Three samples of canned tomatoes, one sample of canned cherries and one sample of fruit pectin were submitted for bacteriological and chemical examination. The samples of canned tomatoes and fruit pectin were reported to be satisfactory. The canned cherries were found to be unsatisfactory, and the whole consignment was appropriately dealt with.

VIII.—MEDICAL INSPECTION OF ALIENS.

The following is a summary of the work done in connection with the medical inspection of aliens:—

	Total	by Medical Number.	Inspectors. Inspected.
Aliens (excluding alien seamen) landing at the port ...	233	...	88
Aliens refused permission to land by Immigration Officer	18	...	—
Totals	251		88
Number of vessels carrying alien passengers ... ..	...	...	70
Number of such vessels dealt with by the Medical Inspector			3
Analysis of aliens landing:—			
Residents returning ... ..	...	...	8
In transit ... ..	...	...	14
Visitors ... ..	...	...	42
Business ... ..	...	...	102
Contract seamen ... ..	...	...	66
Ministry of Labour Permit—Males ... ..	...	...	—
Coming to settle, not holding Ministry of Labour Permits—Males ... ..	...	...	—
Total ... ..	...	...	232

The 88 aliens referred to the Medical Inspectors by the Immigration Officer for detailed examination intended taking up employment and remaining in the country over three months.

IX.—DISEASES OF ANIMALS ACTS, ETC.

The various orders under the Diseases of Animals Acts with reference to the importation of animals were strictly enforced during the year. Three hundred and ninety-four dogs, 580 cats and one fox were brought to the port on vessels, and one vessel arrived direct from a scheduled country with five sheep and two pigs on board. All the vessels were visited regularly during their stay in port to ensure that the requirements of the orders were observed.

Legal proceedings were taken against the master of one vessel for two infringements of the Animals (Importation) Order, 1930, fines amounting to £4 0s. 0d. being imposed.

On 2nd June the s.s. "Concordia" arrived from Montreal and landed 449 head of cattle at the imported animals wharf.

X.—CANAL BOATS.

The Chief Port Sanitary Inspector, who is also Inspector of Canal Boats, has reported that he made 40 inspections of canal boats during the year and found infringements of the Acts regarding painting in eight instances. Verbal orders were given, and the infringements were remedied in each case. The number of boats (not propelled by motor) on the register was 14, each with accommodation for two males. The sanitary condition of the canal boats generally was satisfactory.

SCHOOL MEDICAL SERVICE.

I.—STAFF.

The medical staff consists of the School Medical Officer, a deputy medical officer and eight assistant medical officers, all of whom, being engaged in other sections of the Public Health Department, devote part time only to the work. During 1932 the deputy medical officer took charge of the Isolation Hospital, three assistant medical officers (including two engaged part time) relinquished their appointments, and three assistant medical officers (including one engaged part time) were appointed. Apart from the School Medical Officer, who is also Medical Officer of Health, the medical staff-time devoted to the school medical service is equivalent to three and nine-elevenths medical officers. There are also four part-time specialist medical officers (an ophthalmic surgeon, an aural surgeon, an anaesthetist and an orthopaedic surgeon) who undertake treatment at the school clinics, four dentists, a supervisor of nurses, thirteen nurses, a chief clerk, nine clerks (seven of whom are females) and four female dental clerk-attendants. The supervisor of nurses, two nurses (orthopaedic) and the chief clerk are employed also in other sections of the Department.

II.—CO-ORDINATION.

The effective co-ordination existing between the school medical service and the several other services administered by the Public Health Department, which was fully described in the report for 1930, has been maintained.

III.—SCHOOL BUILDINGS.

Constant attention is paid to the sanitary condition and structural suitability of the school buildings by the City Engineer's Department. While visiting school premises in connection with routine medical inspections, the medical officers also take notice of the sanitary condition of the buildings, and arrangements have been made for the district sanitary inspectors to inspect them periodically. Defects discovered by medical officers and sanitary inspectors are reported by the School Medical Officer to the Director of Education, who refers them to the appropriate quarters to be remedied.

IV.—MEDICAL INSPECTION.

The numbers of children medically inspected at routine and special inspections and the numbers of re-inspections are set out in Table I of the Appendix, the figures regarding elementary and special schools being shown separately from those for secondary and high schools.

Altogether, 11,510 school children were inspected at routine inspections, as against 13,058 in 1931. The decrease was caused almost entirely by the smaller number of children in the entrants' group. The number of children specially inspected was 6,470, compared with 5,570 in the previous year, the increase being due mainly to an arrangement made during the year whereby all children recommended for free meals are referred for medical inspection. Of the children specially inspected, 658 were inspected at school and 5,812 at the school clinics. In addition, 4,986 individual children were re-inspected during the year, the actual number of re-inspections being 8,419, as compared with 5,831 and 9,260 respectively in 1931.

On the request of the managers of a secondary school for boys aided by the Local Authority, arrangements were made in 1932 for the pupils in attendance to be medically inspected as a routine matter. This is the only change made in the arrangements regarding secondary and high schools described in the report for 1931.

V.—FINDINGS OF MEDICAL INSPECTION.

The diseases and defects found at routine and special inspections to require treatment or to be kept under observation are shown in detail in Table II A of the Appendix. Of 10,001 elementary school children inspected at routine inspections, 1,906, or 19·0 per cent., and of 1,509 secondary and high school children, 228, or 15·1 per cent., were found to be suffering from one or more defects (excluding dental disease and uncleanliness) requiring treatment. Of the 6,345 elementary school children specially inspected, 3,282, or 51·7 per cent., and of 125 secondary and high school children dealt with in this way, 49, or 39·2 per cent., were found to require treatment for diseases or defects other than dental disease and uncleanliness.

The following table shows the number and proportion of cases in which diseases or defects of various kinds were discovered:—

Diseases or Defects	Defects found at Routine Inspections		Defects found at Special Inspections	
	Number	Percentage	Number	Percentage
Malnutrition	83	0·72	61	0·94
Skin Diseases	153	1·33	1,332	20·59
Defective Vision and Squint	1,033	8·97	236	3·65
External and Other Eye Diseases	77	0·67	112	1·73
Otitis Media	125	1·08	139	2·15
Other Ear Diseases	124	1·08	128	1·98
Enlarged Tonsils only	471	4·09	241	3·72
Adenoids only	21	0·18	29	0·45
Enlarged Tonsils and Adenoids	71	0·62	53	0·82
Other Nose and Throat Defects	77	0·67	177	2·73
Enlarged Cervical Glands	41	0·36	83	1·28
Defective Speech	26	0·22	16	0·25
Heart Diseases	201	1·75	165	2·55
Anaemia	58	0·50	98	1·51
Lung Diseases—Non-Tuberculous	186	1·61	297	4·59
Tuberculosis (All forms, including suspects)	10	0·09	39	0·60
Nervous Diseases	53	0·46	132	2·04
Deformities	81	0·70	40	0·62
Other Defects and Diseases... ..	687	5·97	1,028	15·89

When the figures set out in this table are compared with those of previous years, it is found that the occurrence of most of the defects has not varied greatly. There are, however, two rather striking exceptions. The amount of tonsillar enlargement recorded has been steadily falling, while, on the other hand, there has been a rapid increase in the number of cases of heart disease discovered. The former change may be due to a more conservative attitude on the part of the medical officers. The increase of heart disease is almost certainly due to the establishment of facilities for early treatment through the Lord Pontypridd Hospital and the associated network of clinics.

Variation in the Incidence of Defects from Year to Year.—The percentage of elementary school children found at routine medical inspection to be suffering from defects requiring treatment has varied since 1923 as shown in the following statement:—

Year.	Percentage.
1923 ...	17·2
1924 ...	16·8
1925 ...	15·0
1926 ...	13·1
1927 ...	14·2
1928 ...	13·8
1929 ...	15·0
1930 ...	19·8
1931 ...	18·9
1932 ...	19·0

The significance of these figures was referred to in the report for 1930.

Entrants.—The following table, compiled from information supplied by parents or guardians, shows the medical history of 3,143 school children (1,528 boys and 1,615 girls) prior to medical inspection as entrants:—

Diseases	Boys		Girls		Both Sexes	
	Number	Percentage	Number	Percentage	Number	Percentage
Measles	761	49·80	886	54·86	1,647	52·40
Whooping Cough	500	32·72	621	38·45	1,121	35·67
Chickenpox	317	20·75	371	22·97	688	21·89
Scarlet Fever	52	3·40	47	2·91	99	3·15
Diphtheria	44	2·88	47	2·91	91	2·90
Rheumatism	16	1·05	26	1·61	42	1·34
Chorea	1	0·07	3	0·19	4	0·13
Tuberculosis	9	0·59	4	0·25	13	0·41
Bronchitis	56	3·66	66	4·09	122	3·88
Pneumonia	67	4·38	81	5·02	148	4·71
Other Diseases	251	16·45	251	15·54	502	15·97

The summary of defects found at routine and special inspections given on the preceding page and the detailed returns in Table II A of the Appendix refer to children in all groups. It will be seen from Table II B of the Appendix that the proportion of children entering school who required treatment (exclusive of uncleanness, pediculosis and dental diseases) was 13·4 per cent. The corresponding percentages in 1931 and 1930 were 14·7 and 16·1 respectively. In addition to defects requiring immediate treatment, many children are found with defects which require to be kept under observation, and Table II C of the Appendix has been compiled, as usual, to show the total number of entrants found with defects of all kinds. Taking all defects into consideration, whether requiring immediate treatment or not, 37·6 per cent. of the entrants inspected at school were found to be defective, as compared with 36·7 per cent. in 1931 and 42·7 per cent. in 1930. Of the total number of defects recorded in 1932, 19·7 per cent. were affections of the nose and throat and 33·9 per cent were defective teeth.

Enlargement of the Thyroid Gland.—Records continue to be kept of children approaching puberty who were found to have enlargement of the thyroid gland (simple goitre). Among 3,778 children (2,157 boys and 1,621 girls) who had attained the age of 12 years at the beginning of 1932 and who were examined during the year, 56 (15 boys and 41 girls) were found to have enlargement of the gland. The percentage of this condition recorded among children over 12 years of age since 1924 has been as follows:—

Year.	Boys.		Girls.		Both Sexes.	
1924 ...	1·27	...	5·99	...	3·65	...
1925 ...	1·46	...	5·55	...	2·78	...
1926 ...	0·95	...	6·14	...	3·48	...
1927 ...	0·42	...	6·75	...	3·64	...
1928 ...	0·39	...	7·07	...	3·67	...
1929 ...	0·12	...	3·59	...	1·87	...
1930 ...	0·22	...	3·25	...	1·65	...
1931 ...	0·20	...	3·75	...	1·95	...
1932 ...	0·69	...	2·53	...	1·48	...

VI.—RE-INSPECTION OF CHILDREN FOUND DEFECTIVE.

The usual survey was made by the medical officers of cases in certain categories referred for treatment or observation during the previous year. The total number of children re-inspected in this survey was 1,969, showing 2,164 defects (see Appendix, Table VI). Such defects as malnutrition, uncleanness and infectious skin diseases, which are continuously under supervision because of exclusion from school, and dental diseases, regarding which fairly full knowledge is obtained through the clinic organisation, were omitted from this survey. Many of the children previously found defective had left school or were absent at the time of re-inspection.

Of the 2,164 defects in children re-inspected, 930 had not been treated, this number including some cases of such a serious nature as heart disease, anaemia, lung diseases and deformities. The condition of the defects on re-inspection, classified according to whether or not they had received treatment, may be shown as follows:—

	Percentage		
	Cured or improved	Not improved	Worse
Treated at School Clinics	88·9	11·1	—
Treated elsewhere	86·2	13·8	—
Not treated	34·4	59·0	6·6
All cases	65·4	31·8	2·8

VII.—EXCEPTIONAL CHILDREN

Physically Defective Children.—The numbers of children of school age known to the Department to be physically defective as at 31st December, 1932, are recorded in detail in the Appendix (Table III).

Greenhill Open-Air School.—At the end of the year the number of physically defective children on the register of the Open-Air School was 137, the average attendance during the year (excluding August) being 113. No further progress has been made for extending the accommodation to which reference has been made in previous reports, as the Board of Education, in June, 1932, declined to give approval to the proposed extensions, on the grounds that they are not sufficiently urgent. The children at this school are kept under close observation by medical officers of the Department.

During 1932, 113 children (54 girls and 59 boys) were admitted to the Open-Air School and 116 (54 girls and 62 boys) were discharged. The reasons for the admission of cases during the year were as follows:—

Condition.	Number.
Anaemia	16
Malnutrition	37
Anaemia and Malnutrition	27
Cervical Adenitis	3
Quiescent Tuberculosis (Non-pulmonary)	7
Post-rachitic Debility	2
Post-rheumatic Debility	17
Post-pneumonic Debility	3
Chronic Blepharitis	1
Total	113

The principal causes only have been considered in the above classification. In many instances there was a combination of several of the diseases mentioned. Twenty-five of these children, who had shown clinical signs suggestive of tuberculosis, had previously been examined by the Tuberculosis Physician, but at the time of admission to the school none of them suffered from active tuberculosis. A history of tuberculosis in the parents or brothers and/or sisters was obtained in 29 of the children admitted.

Of the 116 children discharged during the year, 22 had attended for only short periods, mainly on account of unsuitability of temperament. The remaining 94 attended for periods varying from 3 to 39 months. The following table shows the average increases in weight and height of this group of children during the periods throughout which they attended the school:—

Average Period in School (Months)					Number of Children in Group	Average Age on Discharge (Years)	Average gain in Weight (Pounds)	Average gain in Height (Inches)
3	...	...	...	...	3	10.17	0.83	0.50
6	...	...	...	...	6	9.08	3.46	1.00
9	...	...	...	...	5	10.20	5.10	1.69
12	...	...	...	...	8	10.91	7.97	2.39
15	...	...	...	...	9	10.42	6.91	2.50
18	...	...	...	...	7	10.46	10.71	3.67
21	...	...	...	...	14	11.38	12.39	3.75
24	...	...	...	...	25	10.22	11.25	4.54
27	...	...	...	...	5	8.30	8.10	4.60
30	...	...	...	...	5	9.90	16.70	6.15
33	...	...	...	...	2	10.00	14.63	6.38
36	...	...	...	...	3	9.33	16.58	7.17
39	...	...	...	...	2	12.00	19.30	7.38

Sixty-five children were assessed scholastically and intellectually during attendance at the school, the results being given in the following table:—

Average Period in School (Months)		Number of Children in Group	Average Age on Assessment (Years)	Average Scholastic Age (Years)	Average Mental Age (Years)	Average Intelligence Quotient (Percentage)
3	...	2	7.75	7.13	7.00	81.15
6	...	4	10.02	9.92	10.00	100.13
9	...	3	10.42	9.78	10.33	100.73
12	...	7	9.94	8.91	9.12	90.37
15	...	7	9.64	8.11	8.47	91.79
18	...	5	10.00	9.55	9.05	91.32
21	...	9	10.26	9.79	10.72	103.27
24	...	19	9.16	8.27	8.46	92.08
27	...	2	7.26	7.70	7.38	102.15
30	...	3	8.28	7.26	7.75	94.10
33	...	1	9.93	11.00	9.00	90.00
36	...	1	6.09	5.60	9.83	94.00
39	...	2	8.88	6.56	6.80	78.00

Mentally Defective Children.—The number of known mentally defective children of special school age (7-16 years) at 31st December, 1932, who were not transferable to the Mental Deficiency Authority, was 126, of whom 116 were in attendance at the Special Day School.

During the year, 60 children were specially examined or re-examined for suspected mental deficiency. Of these, 1 was regarded as normal, 32 were found to be dull and/or backward, 16 were certified as feeble-minded and suitable for education in a special school, 1 was found to be neurotic and unstable, and 10 (7 imbeciles and 3 idiots) were transferred to the care of the Mental Deficiency Authority. In addition to the 10 cases mentioned, 23 children formerly attending the special day school were notified to the Mental Deficiency Authority, 12 of them (6 feeble-minded and 6 imbeciles) being incapable of receiving further benefit from instruction there and 11 (feeble-minded) on or before attaining the age of 16 years.

The following is the classification, in a form prescribed by the Board of Education, of 33 cases notified during 1932 to the Mental Deficiency Authority:—

Diagnosis	Boys	Girls	Totals
1. (i) Children incapable of receiving benefit or further benefit from instruction in a Special School :—			
(a) Idiots ... ..	...	3	3
(b) Imbeciles	8	5	13
(c) Others	4	1	5
(ii) Children unable to be instructed in a Special School without detriment to the interests of other children:—			
(a) Moral Defectives ... ..	...	...	...
(b) Others	1	...	1
2. Feeble-minded children notified on leaving a Special School on or before attaining the age of 16	8	3	11
3. Feeble-minded children notified under Article 3 of the 1928 Regulations, <i>i.e.</i> , "special circumstances" cases ... ..	...	...	...
4. Children who in addition to being mentally defective were blind or deaf ... ..	...	...	...
Totals	21	12	33

The numbers of children of special school age known to be mentally defective at 31st December, 1932, whether under the Education Authority or the Mental Deficiency Authority, were as follows:—

Diagnosis	Education Authority Cases			Mental Deficiency Authority Cases		Totals
	Attending Special Day School	In Special Residential Schools	Not attending Special School	In Institutions or under Guardianship	Under Supervision at Home	
Feeble-minded	116	1	9	2	16	144
Imbecile ... ..	...	...	...	11	52	63
Idiot ... ..	...	...	...	3	13	16
Post-encephalitic Deterioration ... ..	...	...	...	...	1	1
Totals	116	1	9	16	82	224

Of the cases under supervision at home, referred to in the above table, 22 (6 feeble-minded, 15 imbeciles and 1 idiot) were attending the Occupation Centre, and 24 cases who had previously attended the Special School were attending the Training Centre.

Mentally Retarded Children.—During June and July, 1932, 19 of the 20 children in the special class for mentally retarded children—the Delta Class—were re-examined scholastically and mentally. The chronological, mental and scholastic ages of these children were as follows:—

Chronological age	...	...	...	8.0 to 12.2 years.
Mental age	...	...	...	5.7 to 9.4 years.
Scholastic age	...	...	...	5.2 to 9.1 years.

The mental age is that obtained by examination with Burt's revision of the Binet-Simon tests. The scholastic age is the mean of Burt's standardised tests in reading, spelling and mental arithmetic.

Of the 19 children re-examined, 12 were regarded as border-line cases, i.e., they had an intelligence quotient of about 70 per cent., the extremes being 64 per cent. and 76 per cent. Four were regarded as being mainly illiterate, their intelligence quotient varying, the highest being 83 per cent. One was a case of epilepsy, coupled with mental defect; this child was recommended for admission to a residential school. One—a boy who has since died—had a severe degree of defective vision (congenital); in this case the child's parents had failed to obtain spectacles in spite of repeated efforts. One was a nervous child who would probably have been assisted to readjust himself by treatment at a child guidance clinic; this child's intelligence quotient was 82 per cent., and in less than a year he made a year's improvement in his scholastic attainments; he was transferred to an ordinary elementary school. Four other children added a year to their scholastic ages in one year; two of these had been in the special class for three terms and one for two terms. One child, who lived a long distance from the class and was irregular in attendance, was transferred to an ordinary elementary school. Fifteen of the children who were re-examined were recommended for further attendance at the Delta Class.

Owing to the illness of the medical officer concerned, a further examination of the children in the class, which was due at the end of the year, had to be postponed.

Blind Children.—The number of blind children of special school age (including partially blind children suitable for training in a school for the totally blind) at the end of the year was 8, all of whom were in attendance at the School for Children with Defective Sight.

Partially Blind Children.—The number of school children of special school age suitable for training in a school or class for the partially blind at the end of 1932 was 73. Forty-nine of these were attending the School for Children with Defective Sight, where special provision has been made for the education of partially blind children. Of the 49 children attending the special classes, 22 suffer from myopia, the remaining 27 having other forms of defective vision. Of the 24 partially blind children not attending the special classes, 16 suffer from myopia and 8 from other defects of vision.

Deaf Children.—The number of deaf children of special school age at the end of the year was 24, all of them being in attendance at the Oral School for Deaf Children.

Partially Deaf Children.—Thirteen children attending ordinary elementary schools who might be suitable for training in a school or class for the partially deaf were known to the Department at the end of the year.

Stammerers.—The special classes for speech training opened at the beginning of the year with the names of 39 scholars (31 boys and 8 girls) on the register. The number admitted during the year was 28 (23 boys and 5 girls), the total number of individual cases dealt with being 67. Thirty-four children were discharged during 1932, three of them on account of irregular attendance and 2 for other reasons. The classification of the remaining 29 cases on discharge was as follows:—

Provisionally cured	...	...	...	...	...	5
Much improved	...	...	...	...	...	13
Improved	...	...	...	...	...	7
Unsuitable for further treatment	...	...	...	...	...	4
						—
Total	...	...	...	...	...	29
						—

At the close of each term head teachers were asked to supply reports on the progress, according to their opinion, made by children attending the classes. The following tabular statement is a summary of these reports:—

			1st Term.		2nd Term.		3rd Term.
Provisionally cured	...	...	—	...	—	...	3
Much improved	...	...	5	...	13	...	12
Improved	...	...	31	...	23	...	22
Not improved	...	...	11	...	7	...	11
			—		—		—
Totals	...	...	47		43		48
			—		—		—

Head teachers also supplied reports at the end of the year on scholars who had passed through the special classes and who were still attending school. These reports are summarised as follows:—

Provisionally cured	...	...	...	...	...	6
Much improved	...	...	...	...	...	23
Improved	...	...	...	...	...	22
Not improved	...	...	...	...	...	9
No report owing to irregular attendance				...	...	1
						—
Total	...	...	...	...	...	61
						—

The Instructress has continued to visit the schools and homes of children attending the special classes and to make after-care visits to children who have left school. She made 57 visits to schools, 56 visits to the homes of children in attendance, and followed up 56 cases who had attended the classes but had since left school. The condition of the speech of the cases to whom after-care visits were made is summarised as follows:—

Cured	...	...	...	...	...	1
Progressed or improved	...	...	...	...	...	35
Improvement maintained	...	...	...	...	...	11
No progress	...	...	...	...	...	1
Relapsed	...	...	...	...	...	8
						—
Total	...	...	...	...	...	56
						—

VIII.—COMMUNICABLE DISEASES.

The numbers of school children notified during the year as suffering from various communicable diseases were as follows:—

Scarlet fever	...	...	...	...	...	508
Diphtheria	...	...	...	...	...	333
Pneumonia	...	...	...	...	...	36
Cerebro-spinal fever	...	...	...	...	...	2
Acute poliomyelitis	...	...	...	...	...	1
Dysentery	...	...	...	...	...	1
Erysipelas	...	...	...	...	...	2
Tuberculosis—Respiratory	...	...	...	...	...	21
„ —Other forms	...	...	...	...	...	28

The following cases of non-notifiable communicable diseases were intimated by head teachers or school attendance officers, or were otherwise ascertained:—

Chickenpox	...	...	...	...	...	498
Measles	...	...	...	...	...	311
Rubella	...	...	...	...	...	4
Whooping cough	...	...	...	...	...	320
Mumps	...	...	...	...	...	587

Vaccinal State of School Population.—The following table shows the vaccinal state of 11,180 children and young persons (elementary, secondary and high schools) inspected during 1932. The proportion vaccinated was 58·1 per cent., compared with 56·1 in 1931. During recent years the highest proportion of all children inspected at routine inspections found to be vaccinated was 66·5 per cent. in 1924.

Age—Years	Vaccinated	Unvaccinated	Totals	Percentage Vaccinated
3	127	165	292	43·5
4	606	594	1,200	50·5
5	621	629	1,250	49·7
6	178	171	349	51·0
7	26	24	50	52·0
8	1,198	685	1,883	63·6
9	1,112	756	1,868	59·5
10	43	31	74	58·1
11	247	189	436	56·7
12	1,799	1,164	2,963	60·7
13	135	79	214	63·1
14	50	27	77	64·9
15	146	72	218	67·0
16	146	62	208	70·2
17	47	19	66	71·2
18	16	11	27	59·3
19	4	1	5	80·0
Totals ...	6,501	4,679	11,180	58·1

IX.—“FOLLOWING UP” AND THE WORK OF SCHOOL NURSES.

Following Up.—The arrangements for following up by school nurses of cases in which diseases or defects are found at medical inspections apply to scholars of secondary and high schools as well as elementary schools. The number of new cases visited by the school nurses was 4,887, and the total number of visits made was 6,810, which were distributed as follows:—

Diseases or Defects	First Visits	Revisits	Totals
Defects of Vision	1,192	591	1,783
Defects of Teeth	542	155	697
Defects of Ear, Nose and Throat	914	444	1,358
Other Defects	2,239	733	2,972
Totals	4,887	1,923	6,810

Cleanliness Surveys.—The nurses paid 302 special visits to schools, making 44,732 examinations of children for uncleanness. The number of children found to be harbouring vermin was 38, and 2,934 were found to have nits only. The number of children previously found unclean who were re-examined was 1,594; of these, 24 were found to be free from vermin and 534 to be free from vermin and nits. The proportion of children found to be in a verminous condition was 0·08 per cent., as compared with 0·1 and 0·5 per cent. in 1931 and 1930 respectively.

Other Work of School Nurses.—The school nurses assist the medical officers at routine and special inspections and at the school clinics in connection with the treatment of minor ailments, diseases of the ear, nose and throat, defective vision and X-ray treatment of ringworm. They also assist the school dentists during the treatment of children under general anaesthetics. The school nurses personally cleanse children suffering from scabies at the Cleansing Station, and during 1932 the number of children dealt with in this way was 151, the total number of baths given being 332.

X.—MEDICAL TREATMENT, ETC.

No alterations have been made in the arrangements for medical and other treatment at the school clinics, which comprise:—

- (i) Treatment of minor ailments.
- (ii) X-ray treatment of ringworm of the scalp.
- (iii) Zinc ionisation for otorrhoea.
- (iv) Operative treatment of nose and throat defects.
- (v) Correction of errors of refraction.
- (vi) Orthopaedic treatment.
- (vii) Dental treatment.

The facilities provided for treatment are available for school children who are subject to medical inspection, including pupils of secondary and high schools. Charges are made for operative treatment of nose and throat defects, for hospital treatment and appliances in cases of crippling, and for dental treatment. The charges are made according to parents' ability to pay, and according to an approved scale. Cases in which the family income is below the scale are treated free of charge.

Minor Ailments.—Table IV, Group I, in the Appendix gives details of the treatment of minor ailments (skin diseases, minor eye and ear defects, etc.), from which it will be seen that altogether 1,767 such defects were treated at the school clinics, as compared with 1,722 in 1931.

The nurses of the Queen's Institute of District Nursing rendered the usual assistance in the home nursing and treatment of minor ailments. One hundred and fifty-five cases were referred to them for treatment, and they paid 2,718 visits to the homes of children to administer treatment. Details of this work are given below:—

Diseases or Defects	Cases Carried over from 1931		Cases Referred for Treat- ment during 1932		Totals	
	Cases	Visits	Cases	Visits	Cases	Visits
Skin:—						
Impetigo... ..	1	3	15	250	16	253
Other Skin Diseases	2	4	9	113	11	117
Minor Eye Defects	3	104	18	606	21	710
Minor Ear Defects	1	4	2	18	3	22
Miscellaneous	1	1	111	1,615	112	1,616
Totals	8	116	155	2,602	163	2,718

First-Aid Outfits.—To enable teachers to render first aid in minor accidents which occur at schools, first-aid outfits (in metal boxes) are provided. New supplies of dressings, etc., required to replenish the outfits are supplied by the Department on application. Judging by the large numbers of applications received, these outfits serve a very useful purpose.

Ringworm.—One hundred and forty-six cases of ringworm were treated by or under the supervision of the medical staff of the department. Of this number, 30 were cases of ringworm of the scalp, 8 of whom were treated by X-rays.

A complete cure was obtained in each of the 8 cases treated by X-rays, the average period of exclusion from school being 41 days. Details of the periods of exclusion are as follows:—

Number of days of exclusion from school after X-ray treatment	Number of Cases	Percentage
21 — 25	2	25·0
26 — 30	3	37·7
Over 30	3	37·7
Total ...	8	—

Complete treatment of the scalp was carried out in 4 cases, in the other 4 cases partial treatment only being necessary. In addition, 13 cases (9 complete and 4 partial) were treated for the Pontypridd Education Authority by special arrangement.

Radiography.—In addition to the treatment of ringworm of the scalp, the X-ray apparatus is used for radiography, which is of great assistance to the medical officers and dentists in connection with the work of the clinics. The X-ray apparatus is used both for school children and for cases referred from the maternity and child welfare centres, the cost being apportioned between the two services.

The numbers of individual cases referred for radiography from the school clinics and maternity and child welfare centres were 80 and 232 respectively. The total number of skiagrams taken was 446 (165 in connection with the school medical service and 281 in connection with maternity and child welfare).

The following table shows the sources from which the cases were referred and the parts requiring X-ray examination:—

	School Medical Service Cases	Maternity and Child Welfare Cases	Totals
Teeth	6	1	7
Chest	1	1	2
Spine	37	5	42
Shoulder	2	6	8
Arm	2	6	8
Elbow	5	2	7
Wrist	1	193	194
Hand	3	2	5
Hip	8	20	28
Thigh	2	1	3
Knee	7	1	8
Leg	4	...	4
Foot	9	6	15
Skull	1	3	4
Alimentary tract ... ..	...	1	1
Totals	88	248	336

Visual Defects.—The record of treatment of visual defects is shown in Table IV, Group II, in the Appendix. Altogether, 2,435 children were dealt with at the clinics, of whom 2,010 required examination for errors of refraction. The examination of 1,808 was completed during the year, spectacles being prescribed in 1,650 instances, and by the end of the year 1,518 children were known to have obtained them under the Authority's scheme or otherwise. The number of children examined for defects other than errors of refraction was 271, and appropriate treatment was given in each case. In addition, 37 children examined for errors of refraction were also treated for other eye defects. Five children for whom spectacles were prescribed in 1931 obtained them in 1932.

The following table, prepared by Dr. Sheasby, showing the diseases and defects found in children treated at the special vision clinic, amplifies the information given in the tables contained in the Appendix:—

Diseases or Defects	Boys	Girls	Totals
Squint	115	146	261
Errors of refraction—			
Hypermetropia	277	321	598
Myopia	88	74	162
Astigmatism—			
Hypermetropic	310	370	680
Myopic	93	105	198
Mixed	66	104	170
Conjunctivitis	54	80	134
Phlyctenular conjunctivitis	8	20	28
Blepharitis	46	87	133
Keratitis	3	2	5
Phlyctenular Keratitis... ..	2	2	4
Syphilitic Keratitis	5	5	10
Nebulae	15	36	51
Corneal nebulae	1	—	1
Corneal ulcer	5	4	9
Foreign body in cornea	—	2	2
Dermoid cyst... ..	—	2	2
Meibomian cyst	2	2	4
Tubercular iritis	1	—	1
Choroiditis	3	3	6
Dacryocystitis	—	1	1
Nystagmus	4	7	11
Subconjunctival haemorrhage	1	—	1
Congenital cataract	3	—	3
Ptosis	1	2	3
Detachment of retina	1	—	1
Retinitis pigmentosa	1	1	2
Diplopia	—	2	2
Lenticular opacities	1	3	4
Wart on eyelid	—	2	2
Coloboma of macula	1	1	2
Abscess of eyelid	2	2	4
Iridocyclitis	—	1	1
Albinic fundus	—	1	1
Leucoma adhaerens	1	1	2
Totals	1,110	1,389	2,499

Nose and Throat Defects.—Particulars of operative and other forms of treatment of nose and throat defects carried out at the clinics are given in the Appendix, Table IV, Group III. The number of nose and throat cases examined was 1,606, of whom 561 received operative treatment, 38 operative and other forms of treatment, and 522 other forms of treatment only.

Crippling Defects and Orthopaedics.—The number of non-tuberculous crippled children of school age, suffering from a degree of crippling sufficiently severe to interfere materially with their normal mode of life, known to the Department at the end of the year was 56. Of these, 46 were attending elementary schools, 5 were at residential schools, while 5 were at no school or institution.

The following is a summary of the work carried out at the orthopaedic clinic during 1932:—

	<i>Children of School Age.</i>			
<i>Consultation Clinic:—</i>				
Examined for the first time	...	...	...	250
Recommended for treatment for first time	...	...	...	179
Previously treated, recommended for additional treatment	...	...	...	204
<i>Recommendations for:—</i>				
Treatment in Hospital	...	...	...	44
Treatment at Clinic (Special and Routine)	...	...	...	142
Appliances	...	...	...	29
Alterations to appliances	...	...	...	11
Special boots	...	...	...	29
Alterations to boots	...	...	...	107
Other forms of treatment	...	...	...	30
Treated at Clinic for first time	...	...	...	59
Attendances at Clinic	...	...	...	934
<i>Routine treatment (massage, electricity, exercises, etc.):—</i>				
Treated at Clinic for first time	...	...	...	122
Attendances for routine treatment	...	...	...	3,993

The following statement relates to treatment at and provision of appliances, etc., through the Prince of Wales' Hospital, Cardiff, during 1932:—

Prince of Wales' Hospital, Cardiff, during 1932.					Children of School Age.
<i>Hospital treatment:—</i>					
Admitted to Prince of Wales' Hospital—					
(a) Day cases	...	...	...	...	—
(b) Other cases	...	...	...	...	30
Under treatment at Prince of Wales' Hospital at end of 1932	...	...	...	...	2
On Prince of Wales' Hospital waiting list at end of 1932—					
(a) Day cases	...	...	...	...	—
(b) Other cases	...	...	...	...	9
<i>Other treatment or provision (including appliances, etc., provided following hospital treatment):—</i>					
Appliances provided	...	...	...	...	85
Appliances altered	...	...	...	...	15
Special boots provided	...	...	...	...	22
Alterations to boots	...	...	...	...	109
Other forms of treatment provided	...	...	...	...	35

The following tabular statements deal with the work of the orthopaedic scheme during 1932 as regards children under and of school age. The clinic exists both for school children and for those under school age, the Education Authority, of course, being responsible only for the cost of the former.

The number of ascertained cripples (including children suffering from minor crippling defects) under or of school age on the clinic register was as follows:—

Remaining on register at 1st January, 1932	...	1,041
Ascertained during the year	... ..	376
Total	...	1,417
Discharged during the year	... ..	291
Remaining on register at 31st December, 1932	...	1,126

The new cases seen during the year have been classified as follows:—

Diseases or Defects	Children under School Age	Children of School Age	Totals
Defective Posture	1	143	144
Flat Foot	15	32	47
Bow Legs	42	...	42
Talipes	24	4	28
Rickets	11	...	11
Poliomyelitis... ..	3	4	7
Spastic Paralysis	4	2	6
Birth Palsy	3	1	4
Congenital Malformation or Deformity	4	5	9
Congenital Dislocation of the Hip	3	1	4
Scoliosis ... ..	...	14	14
Torticollis	1	2	3
Perthes' Disease ... ..	...	2	2
Trauma	4	9	13
Other Defects... ..	11	31	42
Totals	126	250	376

The large number of new cases of defective posture shown is due to the fact that all minor degrees of defect have been referred to the orthopaedic clinic, and in these cases satisfactory results have been obtained after a course of remedial exercises. Deformity of a severe degree is diminishing. The majority of new cases now referred to the clinic are of an early and mild type. Three of the cases of congenital dislocation of the hip were discovered at infant welfare centres before the children commenced to walk.

The cases discharged during the year are classified in the following table:—

Reason	Children under School Age	Children of School Age	Totals
Cured	21	71	92
Improved	10	34	44
Unlikely to benefit further	1	19	20
Left the district	2	4	6
Over school age ... ..	...	54	54
Other reasons (including trivial abnormalities)	10	65	75
Totals	44	247	291

The attendances at the specialist clinics were as follows:—

Children under school age	...	...	...	73
Children of school age	...	...	...	131
				<hr/>
Total	...	...	...	204
				<hr/>

The attendances for routine treatment were as follows:—

Attendances of children under school age	...	...	1,173
Attendances of children of school age	...	...	3,993
			<hr/>
Total	...	...	5,166
			<hr/>

These 5,166 attendances were made by 264 individual children, of whom 78 were under school age and 186 were of school age.

Dental Inspection and Treatment.—Details of dental inspection and treatment are given in the Appendix (Table IV, Group IV). The total number of children inspected by the dentists was 29,097, of whom 22,317 were found to require treatment. The number of new cases treated was 5,752, and 4,359 were retreated as the result of periodical examination.

XI.—PROVISION OF MEALS.

Thirteen canteens in various parts of the city were in use during the year in connection with the provision of meals by contract for necessitous school children. The total number of meals provided free during 1932 was 483,292, the average number of children receiving meals weekly being 1,204.

Early in September, 1932, it was decided to provide a daily ration of milk at school instead of breakfast at canteens. The milk, which is pasteurised, is delivered to the schools by a contractor before 10 a.m. daily and is issued to the children at 10.15 a.m. Children under 8 years of age are provided with one-third of a pint and older children half-a-pint, the average number of children receiving milk weekly in this way being 1,600. In October the arrangement for supplying milk was extended to children whose parents were prepared to pay for it, and the average number of children receiving milk weekly under this arrangement was 1,073.

XII.—EMPLOYMENT OF CHILDREN AND YOUNG PERSONS.

During the year, 17 children (13 boys and 4 girls) who had left school were examined by medical officers of the Department at the request of the Juvenile Employment (Education) Officer and reports were sent for his guidance.

The following report relating to the employment of children of school age and young persons has kindly been supplied by the Juvenile Employment (Education) Officer, Mr. Ben Williams:—

“A child under the age of 12 years cannot now be legally employed. The approximate number of child employees under the old conditions was 2,000. They were from 10 years of age and upwards, and worked anything up to 36 hours a week, before, between and after school hours.

“Ages of school children employed out of school hours:—

	12 years	13 years	14 years	Totals
Boys ...	76	127	111	314
Girls ...	...	1	1	2
Totals ...	76	128	112	316

"The hawking of newspapers is illegal except for boys over the age of 15 years. Boys between 15 and 16 years need a licence for this work.

"Nature of employment of school children employed out of school hours:—

Nature of Employment	Boys	Girls	Totals
Assisting in shops ...	1	...	1
Delivery of bread ...	21	...	21
Delivery of milk ...	29	...	29
Errands	146	...	146
Miscellaneous ...	117	2	119
Totals ...	314	2	316

"Fifteen hours per week is the maximum number of hours which a child may be employed under the provisions of the bye-laws made under the Employment of Children Act, 1903, as amended by the Education Act, 1918, except in the delivery of milk and newspapers, where two hours' employment is allowed on Sunday mornings, which makes a maximum of 17 hours per week for these two employments.

"Number of hours of employment per week (including Saturday and Sunday) of school children employed out of school hours:—

Number of Hours per Week	Boys	Girls	Totals
1 ... ..	...	...	...
2	3	...	3
3 ... ..	...	...	...
4 ... ..	...	...	...
5	49	...	49
6 ... ..	...	...	...
7	23	...	23
8 ... ..	...	...	...
9	1	...	1
10	1	...	1
11 ... ..	...	...	...
12	57	1	58
13	19	...	19
14	23	...	23
15	98	1	99
16	9	...	9
17	31	...	31
Totals ...	314	2	316

"*Entertainment Section.*—The number of children licensed by the Education Committee and examined by medical officers of the School Medical Officer's Department during 1932 was 54, and 96 children visited Cardiff on license from other areas."

XIII.—MEDICAL EXAMINATION OF TEACHERS.

Teachers newly appointed under the Education Committee and other teachers sent for special reasons are examined by the medical staff, and appropriate reports are forwarded to the Director of Education. During the year, 13 teachers (6 males and 7 females) were examined.

APPENDIX.

TABLE I.

RETURN OF MEDICAL INSPECTIONS.

A—ROUTINE MEDICAL INSPECTIONS.

	Elementary Schools			Secondary and High Schools		
	Boys	Girls	Totals	Boys	Girls	Totals
Code Group Inspections:—						
Entrants	1,528	1,615	3,143	...	...	...
Second Age Group	1,930	1,849	3,779	...	...	...
Third Age Group	1,589	1,160	2,749	...	...	...
Totals	5,047	4,624	9,671	...	...	...
Other Routine Inspections ...	166	164	330	800	709	1,509

B.—SPECIAL INSPECTIONS.

			Elementary Schools			Secondary and High Schools		
			Boys	Girls	Totals	Boys	Girls	Totals
Special Inspections	{	At School ...	313	309	622	15	21	36
		At School Clinic	2,609	3,114	5,723	41	48	89
		Totals ...	2,922	3,423	6,345	56	69	125
Re-inspections	{	At School ...	890	827	1,717	153	99	252
		At School Clinic	2,597	3,714	6,311	45	94	139
		Totals ...	3,487	4,541	8,028	198	193	391

TABLE II.

A.—RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION.

DISEASE OR DEFECT	CHILDREN INSPECTED AT ROUTINE INSPECTIONS				CHILDREN INSPECTED AT SPECIAL INSPECTIONS			
	Elementary Schools		Secondary and High Schools		Elementary Schools		Secondary and High Schools	
	Requiring Treat- ment	Requiring to be kept under Observa- tion but not requiring Treatment	Requiring Treat- ment	Requiring to be kept under Observa- tion but not requiring Treatment	Requiring Treat- ment	Requiring to be kept under Observa- tion but not requiring Treatment	Requiring Treat- ment	Requiring to be kept under Observa- tion but not requiring Treatment
Malnutrition ...	43	38	...	2	40	21	...	...
Skin:—								
Ringworm:—								
Scalp ...	5	...	...	...	28	...	...	...
Body ...	18	...	1	...	118	...	1	...
Scabies ...	32	...	1	...	154	...	...	...
Impetigo ...	53	...	...	...	784	...	3	...
Other Diseases (Non- Tuberculous) ...	40	2	1	...	236	4	4	...
Eye:—								
Blepharitis ...	30	...	3	...	41	...	...	...
Conjunctivitis ...	10	...	1	...	21	...	...	...
Keratitis ...	2	...	...	...	2	...	...	...
Corneal Opacities ...	11	...	1	...	5	1	...	..
Defective Vision (ex- cluding Squint) ...	677	121	127	18	181	10	15	..
Squint ...	75	13	2	...	30	...	...	..
Other Conditions ...	15	2	2	...	39	3	...	..
Ear:—								
Defective Hearing ...	78	3	7	1	56	2	...	.
Otitis Media ...	120	...	5	...	135	4	...	...
Other Ear Diseases ...	33	1	1	...	61	7	2	...
Nose and Throat:—								
Enlarged Tonsils only ...	222	222	18	9	178	61	2	...
Adenoids only ...	17	3	...	1	25	2	2	...
Enlarged Tonsils and Adenoids ...	54	16	1	...	46	7	...	...
Other Conditions ...	56	15	6	...	143	24	9	1
Enlarged Cervical Glands (Non-Tuberculous) ...	26	14	1	...	64	19	...	...
Defective Speech ...	14	10	1	1	9	7	...	...
Heart and Circulation:—								
Heart Disease:—								
Organic ...	17	28	1	8	35	78	...	2
Functional ...	13	127	1	6	9	40	...	1
Anaemia ...	41	16	...	1	85	12	1	...
Lungs:—								
Bronchitis ...	27	21	...	...	45	16	...	...
Other Non-Tuberculous Diseases ...	22	110	1	5	119	112	...	5

TABLE II. A.—continued.

DISEASE OR DEFECT	CHILDREN INSPECTED AT ROUTINE INSPECTIONS				CHILDREN INSPECTED AT SPECIAL INSPECTIONS			
	Elementary Schools		Secondary and High Schools		Elementary Schools		Secondary and High Schools	
	Requiring Treat- ment	Requiring to be kept under observa- tion but not requiring Treatment	Requiring Treat- ment	Requiring to be kept under observa- tion but not requiring Treatment	Requiring Treat- ment	Requiring to be kept under observa- tion but not requiring Treatment	Requiring Treat- ment	Requiring to be kept under observa- tion but not requiring Treatment
Tuberculosis:—								
Pulmonary:—								
Definite ... ..	...	...	...	...	3	...	...	...
Suspected	1	3	...	...	11	7	2	...
Non-Pulmonary:—								
Glands	4	1	...	...	8	1	...	...
Spine ... ..	...	...	...	...	...	...	...	...
Hip ... ..	...	...	...	...	3	...	...	...
Other Bones and Joints	1	...	...	...	2	...	...	...
Skin ... ..	...	...	...	...	...	...	...	...
Other Forms ... ..	...	...	...	...	2	...	...	...
Nervous System:—								
Epilepsy	1	7	3	...	15	5	...	...
Chorea	12	9	1	...	33	15	...	...
Other Conditions ...	6	10	2	2	34	29	...	1
Deformities:—								
Rickets ... ..	...	...	...	...	2	...	...	...
Spinal Curvature ...	13	2	2	...	3	1	...	...
Other Forms	38	13	11	2	20	13	1	...
Other Defects and Diseases (excluding Uncleanliness and Dental Diseases)	409	219	36	23	708	299	8	13

TABLE II.

B.—NUMBER OF INDIVIDUAL CHILDREN FOUND AT ROUTINE AND SPECIAL INSPECTIONS TO REQUIRE TREATMENT (EXCLUDING UNCLEANLINESS AND DENTAL DISEASES).

GROUP	Elementary Schools			Secondary and High Schools		
	Number of Children		Percentage of Children found to require treatment	Number of Children		Percentage of Children found to require treatment
	Inspected	Found to require treatment		Inspected	Found to require treatment	
Code Groups:—						
Entrants	3,143	420	13.4	...	...	...
Second Age Group	3,779	803	21.2	...	...	...
Third Age Group	2,749	633	23.0	...	...	...
Totals	9,671	1,856	19.2	...	...	...
Other Routine Inspections	330	50	15.2	1,509	228	15.1
Specials	6,345	3,282	51.7	125	49	39.2
Grand Totals	16,346	5,188	31.9	1,634	277	16.9

TABLE II.

C.—ENTRANTS: DISEASES AND DEFECTS FOUND TO REQUIRE TREATMENT OR TO BE KEPT UNDER OBSERVATION.

Diseases or Defects referred for Treatment or Observation	DISEASES OR DEFECTS REFERRED FOR TREATMENT OR OBSERVATION														
	(1)	(2)	Tuber- culosis— Pulmonary	(3)	Heart Disease	Anaemia	Respira- tory Diseases— Not Tuber- culosis	(6)	Defective Vision	Ear Defects	Nose and Throat Defects	External Eye Diseases	Skin Diseases	Defective Teeth	Other Diseases and Defects
(1) Tuberculosis—Pulmonary	2	...	...	...	...	...	...	...	...	...	...	...	...	...
(2) Tuberculosis—Non-Pulmonary	4	...	...	...	...	...	...	2	...	...	...	...	...
(3) Heart Disease	87	...	...	...	...	...	6	...	2	...	14
(4) Anaemia	12	1	...	...	...	...	...	...	2	4
(5) Respiratory Diseases (Not Tuberculosis)	87	...	...	1	8	...	...	4	5
(6) Defective Vision	14	...	...	1	...	...	...
(7) Ear Defects	58	3	1	2	4	2
(8) Nose and Throat Defects	243	8	2	26	9
(9) External Eye Diseases	56	3	5	3
(10) Skin Diseases	52	5	5
(11) Defective Teeth	400	7
(12) Other Diseases and Defects	166
TOTALS	2	4	4	87	12	88	14	61	260	66	61	446	215	

Number examined: 3,143. Number found normal: 1,962. Number found defective: 1,181 (the sum of the first figures in the lines of the above table). Number of diseases or defects: 1,316 (the sum of the figures at the foot of the columns in the above table).

The following example is given in explanation of this table:—87 children (shown in line 3, column 4) suffered from heart disease, and of that number 6 suffered from nose and throat defects, 2 from skin diseases, and 14 from other diseases or defects. Each line should be read in the same way.

TABLE III.

RETURN OF ALL EXCEPTIONAL CHILDREN IN THE AREA

(No child entered under more than one heading).

			Boys	Girls	Total
Children suffering from the following types of Multiple Defect:—					
Mentally defective (feeble-minded) and crippled			2	3	5*
Mentally defective (feeble-minded) and blind			1	...	1†
Mentally defective (feeble-minded) and epileptic ... ..			...	1	1†
Blind (including partially blind)	(i) Suitable for training in a School for the totally blind	At Certified Schools for the Blind ...	6	2	8
		At Public Elementary Schools ...	...	...	...
		At other Institutions ...	...	...	...
		At no School or Institution ...	...	...	...
	(ii) Suitable for training in a School for the partially blind	At Certified Schools for the Blind or Partially Blind ...	24	25	49
		At Public Elementary Schools ...	13	11	24
		At other Institutions ...	...	...	...
		At no School or Institution ...	...	...	...
Deaf (including deaf and dumb and partially deaf)	(i) Suitable for training in a School for the totally deaf or deaf and dumb	At Certified Schools for the Deaf ...	12	12	24
		At Public Elementary Schools ...	...	...	...
		At other Institutions ...	...	...	...
		At no School or Institution ...	...	...	...
	(ii) Suitable for training in a School for the partially deaf	At Certified Schools for the Deaf or Partially Deaf ...	...	...	...
		At Public Elementary Schools ...	5	8	13
		At other Institutions ...	...	...	...
		At no School or Institution ...	...	...	...
Mentally Defective	Feeble-minded	At Certified Schools for Mentally Defective Children ...	59	57	116
		At Public Elementary Schools ...	...	...	...
		At other Institutions ...	1	...	1
		At no School or Institution ...	4	5	9
Epileptics	Suffering from severe epilepsy	At Certified Schools for Epileptics ...	1	1	2
		At Certified Residential Open-Air Schools ...	...	...	...
		At Certified Day Open-Air Schools ...	...	...	...
		At Public Elementary Schools ...	...	...	...
		At other Institutions ...	...	...	...
		At no School or Institution ...	5	2	7
	Suffering from epilepsy which is not severe	At Public Elementary Schools ...	11	9	20
		At no School or Institution ...	...	...	...

* 1 boy and 1 girl attend the Special Day School for Mentally Defective Children; 1 boy's name on waiting list for a Residential Special School; 1 girl attends a private school and 1 girl who is ineducable does not attend any School.

† Name on waiting list for Residential Special School.

TABLE III.—continued.

			Boys	Girls	Total
Physically Defective	Active pulmonary tuberculosis (including pleura and intra-thoracic glands)	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board ... ..	...	3	3
		At Certified Residential Open-Air Schools ... ..	...	...	...
		At Certified Day Open-Air Schools ... ..	...	...	...
		At Public Elementary Schools ... ..	...	...	...
		At other Institutions	2	1	3
		At no School or Institution	3	5	8
	Quiescent or arrested pulmonary tuberculosis (including pleura and intra-thoracic glands)	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board ... ..	...	...	...
		At Certified Residential Open-Air Schools ... ..	...	...	...
		At Certified Day Open-Air Schools	1	1	2
		At Public Elementary Schools	12	7	19
		At other Institutions ... ..	...	...	...
		At no School or Institution ... ..	...	...	...
	Tuberculosis of the peripheral glands	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board	2	...	2
		At Certified Residential Open-Air Schools ... ..	...	...	...
		At Certified Day Open-Air Schools ... ..	...	2	2
		At Public Elementary Schools	20	17	37
		At other Institutions ... ..	...	...	...
		At no School or Institution	6	...	6
	Abdominal tuberculosis	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board	1	...	1
		At Certified Residential Open-Air Schools ... ..	...	...	...
		At Certified Day Open-Air Schools ... ..	...	...	...
		At Public Elementary Schools	5	7	12
		At other Institutions	1	...	1
		At no School or Institution	1	1	2
	Tuberculosis of bones and joints (not including deformities due to old tuberculosis)	At Sanatoria or Hospital Schools approved by the Ministry of Health or the Board	7	4	11
		At Public Elementary Schools	19	11	30
		At other Institutions	6	2	8
		At no School or Institution	5	5	10
	Tuberculosis of other organs (skin, etc.)	At Sanatoria or Hospital Schools approved by the Ministry of Health or the Board ... ..	...	...	...
		At Public Elementary Schools	3	3	6
		At other Institutions ... ..	...	...	...
		At no School or Institution ... ..	...	1	1

TABLE III.—continued.

			Boys	Girls	Total
Physically Defective (continued)	Delicate Children, <i>i.e.</i> , all children (except those in- cluded in other groups) whose gen- eral health renders it desirable that they should be spec- ially selected for ad- mission to an Open Air School	At Certified Residential Cripple Schools ...	...	...	...
		At Certified Day Cripple Schools ...	...	...	...
		At Certified Residential Open - Air Schools ...	...	...	...
		At Certified Day Open-Air Schools ...	78	57	135
		At Public Elementary Schools ...	4	3	7*
		At other Institutions ...	...	...	...
		At no School or Institution ...	2	3	5
	Crippled Children (other than those with active tuber- culous disease) who are suffering from a degree of crippling sufficiently severe to interfere mater- ially with a child's normal mode of life	At Certified Hospital Schools ...	...	...	...
		At Certified Residential Cripple Schools ...	...	5	5
		At Certified Day Cripple Schools ...	...	...	...
		At Certified Residential Open - Air Schools ...	...	...	...
		At Certified Day Open-Air Schools ...	...	...	...
		At Public Elementary Schools ...	27	19	46†
		At other Institutions ...	...	...	...
		At no School or Institution ...	1	4	5
	Children with heart disease, <i>i.e.</i> , child- ren whose defect is so severe as to nec- essitate the provi- sion of educational facilities other than those of the public elementary school	At Certified Hospital Schools ...	5	19	24
		At Certified Residential Cripple Schools ...	...	...	...
		At Certified Day Cripple Schools ...	...	...	...
		At Certified Residential Open - Air Schools ...	...	...	...
		At Certified Day Open-Air Schools ...	...	...	...
		At Public Elementary Schools ...	22	37	59
		At other Institutions ...	1	2	3
		At no School or Institution...	4	6	10

*In addition the following are attending Public Elementary Schools:—Boys Girls Total

Children suffering from rheumatism and/or chorea ... 109 253 362

Children suffering from heart irregularities, including
irregularities associated with rheumatism and/or chorea 111 124 235

†41 of these children should be receiving special school education.

TABLE IV.

RETURN OF DEFECTS TREATED.

TREATMENT TABLE.

GROUP I.—Minor Ailments (excluding Uncleanliness, for which see Group V.)

Disease or Defect	Number of Defects Treated or under Treatment during the Year					
	Elementary Schools			Secondary and High Schools		
	Under the Authority's Scheme	Otherwise	Totals	Under the Authority's Scheme	Otherwise	Totals
SKIN :—						
Ringworm—Scalp ...	30	1	31	...	...	...
" Body ...	114	1	115	2	1	3
Scabies ...	165	7	172	...	...	...
Impetigo ...	788	20	808	1	...	1
Other Skin Diseases	231	14	245	3	...	3
MINOR EYE DEFECTS (External and other but excluding cases falling in Group II.)...	29	2	31	...	...	...
MINOR EAR DEFECTS ...	325	4	329	10	1	11
MISCELLANEOUS (e.g., minor injuries, bruises, sores, chil-blains, etc.) ...	69	28	97	...	...	...
Totals ...	1,751	77	1,828	16	2	18

GROUP II.—Defective Vision and Squint (excluding Minor Eye Defects treated as Minor Ailments—Group I.).

	Number of Defects dealt with							
	Elementary Schools				Secondary and High Schools			
	Under the Authority's Scheme	Submitted to Refraction by Private Practitioners or at Hospital	Other-wise	Totals	Under the Authority's Scheme	Submitted to Refraction by Private Practitioners or at Hospital	Other-wise	Totals
Errors of Refraction ...	1,692	2	3	1,697	116	1	3	120
Other Defect or Disease of the Eyes (excluding those recorded in Group I.) ...	298	...	...	298	10	...	...	10
Totals ...	1,990	2	3	1,995	126	1	3	130

GROUP II—continued.

	Elementary Schools	Secondary and High Schools
Children for whom Spectacles were prescribed :—		
(a) Under the Authority's Scheme	1,542	108
(b) Otherwise	4	3
Children who obtained or received Spectacles :—		
(a) Under the Authority's Scheme	1,408*	92†
(b) Otherwise	15	10

GROUP III.—Treatment of Defects of Nose and Throat.

	Number of Defects	
	Elementary Schools	Secondary and High Schools
Received Operative Treatment :—		
Under the Authority's Scheme	590‡	9
By Private Practitioner or at Hospital	1	...
Totals	591	9
Received other forms of Treatment	498	24
Total numbers treated ...	1,089	33

* Including 494 free of charge.

† Including 2 free of charge.

‡ Tonsils only 12; adenoids only 14;
tonsils and adenoids 564.

GROUP IV.—Dental Defects.

					Elementary Schools	Secondary and High Schools
(1) Number of Children who were:—						
(a) Inspected by the Dentists:						
Aged:						
3					57	...
4					402	...
5					2,521	...
6					2,624	...
7					3,195	...
8					3,046	...
Routine Age Groups... 9					3,153	...
10					3,119	...
11					3,276	...
12					2,906	...
13					2,208	...
14					973	...
15					43	...
16					9	...
Totals					27,532	...
Specials					860	705
Grand Totals					28,392	705
(b) Found to require treatment					21,622	695
(c) Actually treated					5,483	269
(d) Re-treated during the year					3,893	466
(2) Half-days devoted to:—						
Inspection					142	...
Treatment					1,574	...
Totals					1,716	...*
(3) Attendances made by children for:—						
Inspection					6,758	304
Treatment					15,493	1,862
Totals					22,251	2,166
(4) Fillings:—						
Permanent teeth					5,932	1,239
Temporary teeth					533	6
Totals					6,465	1,245
(5) Extractions:—						
Permanent teeth					4,030	496
Temporary teeth					18,700	156
Totals					22,730	652
(6) Administrations of general anaesthetics for extractions by:—						
Dentists					4,640	241
Medical Officers					3,305	83
Totals					7,945	324
(7) Other Operations:—						
Permanent teeth					1,379	561
Temporary teeth					94	3
Totals					1,473	564

Known treatment of dental defects by private dentists:—

					Elementary Schools	Secondary and High Schools
Children treated	...	...	...	...	16	27

*Not differentiated from half-days devoted to inspection and treatment of elementary school children.

GROUP V.—Uncleanliness and Verminous Conditions.

Elementary Schools.

(i)	Average number of visits per school made during the year by the school nurses	...	...	...	2.5
(ii)	Total number of examinations of children in the schools by school nurses	...	...	...	44,732
(iii)	Number of individual children found unclean:—				
	With vermin	...	...	...	38
	With nits only	...	...	...	2,934
					<hr/> 2,972
(iv)	Number of children cleansed under arrangements made by the Local Education Authority:—				
	Previously verminous	...	...	...	9
	Previously with nits only	...	...	...	534
	Previously verminous found to be free from vermin but not free from nits				15
					<hr/> 538*

TABLE V.

AVERAGE HEIGHTS AND WEIGHTS OF CHILDREN INSPECTED.

(Elementary Schools).

Age-Years		Boys			Girls		
		Number	Average Height	Average Weight	Number	Average Height	Average Weight
			in.	lb.		in.	lb.
3	...	143	37.7	35.3	143	36.9	33.8
4	...	575	39.1	37.8	555	38.8	37.0
5	...	578	41.7	40.4	611	41.5	39.3
6	...	160	43.7	44.1	173	43.4	43.1
8	...	987	48.7	55.3	778	48.3	53.5
9	...	879	49.7	57.7	872	49.7	56.5
12	...	1,467	55.4	76.5	990	56.3	78.0
13	...	62	56.3	78.2	84	57.9	86.4

*Including cases actually cleansed by the school nurses and cases cleansed by parents on advice given by the nurses.

TABLE VI.

RESULTS OF MEDICAL RE-INSPECTION DURING 1932 OF 1,969 CHILDREN FOUND DURING 1931 TO REQUIRE TREATMENT
OR TO BE KEPT UNDER OBSERVATION.

		Treated at School Clinics				Treated Elsewhere				Not Treated				Totals		Total Number of Defects
		Cured or Im- proved	No Im- prove- ment	Worse	Cured or Im- proved	No Im- prove- ment	Worse	Cured or Im- proved	No Im- prove- ment	Worse	Cured or Im- proved	No Im- prove- ment	Worse	Cured or Im- proved	No Im- prove- ment	
Eye Diseases	...	423	19	...	7	1	...	97	134	50	527	154	50	527	154	731
Ear Diseases	...	55	6	...	5	2	...	3	31	1	63	39	1	63	39	103
Diseases of Nose and Throat	...	234	12	...	5	...	...	155	258	10	394	270	10	394	270	674
Enlarged Cervical Glands	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Defective Speech	...	11	2	...	...	...	...	...	7	...	11	9	...	11	9	20
Heart Diseases	...	17	33	...	...	...	...	15	33	...	32	66	...	32	66	98
Anaemia	...	13	4	...	...	...	...	1	11	...	14	15	...	14	15	29
Lung Diseases (Non-Tuberculous)	...	37	5	...	6	...	...	16	14	...	59	19	...	59	19	78
Tuberculosis	Pulmonary	...	...	...	2	...	...	...	...	...	2	...	...	2	...	2
	Non-Pulmonary	...	...	...	4	...	...	...	...	...	4	...	...	4	...	4
Nervous Diseases	...	11	...	...	1	...	...	1	...	...	13	...	...	13	...	13
Deformities	...	33	15	...	4	3	...	...	10	...	37	28	...	37	28	65
Other Defects and Diseases...	...	205	34	...	22	3	...	32	51	...	259	88	...	259	88	347
Totals	...	1,039	130	...	56	9	...	320	549	61	1,415	688	61	1,415	688	2,164

MENTAL DEFICIENCY SERVICE.

The usual statistical tables regarding the age, sex and classification of mentally defective persons under the care of the Mental Deficiency Committee are submitted. On reference to Table III it will be noted that the total number of ascertained defectives for the care of whom the Committee were responsible at the end of 1932 was 505, as compared with 459 at the end of 1931. Of the 505 cases, 193 were in institutions or under statutory guardianship, the various institutions in which they were accommodated being shown in Table VII. The ascertained cases remaining at home numbered 308, of whom 212 were under statutory supervision and 96 under voluntary supervision, 4 remaining to be dealt with appropriately.

The provision of additional institutional accommodation is still an urgent matter, but the proposed alterations and re-arrangements at Ely Lodge, Cardiff, have not yet been carried out, and the proposed extensions at Hensol Castle, Glamorgan, referred to in previous reports, are still unfinished. At the end of the year, there were 192 cases requiring accommodation in institutions, either because their homes were unsuitable or because they were unsuitably placed in institutions; these cases are classified in Table VIII.

TABLE I.

SUMMARY OF THE YEAR'S WORK.

(1) Cases examined for the first time:—

				<i>Males.</i>		<i>Females.</i>		<i>Totals.</i>
Idiots	...	...	...	1	...	1	...	2
Imbeciles	...	...	...	4	...	4	...	8
Feeble-minded	...	...	...	12	...	15	...	27
Unclassified	...	...	...	1	...	—	...	1
Not Certifiable	...	...	...	4	...	19	...	23
Totals				22	...	39	...	61

(2) Cases re-examined ... 70 ... 44 ... 114

(3) Removed from list of ascertained cases under supervision at home—

(i) Removed to Institutions at instance of Local Authority—

(a) Obligatory	...	...	5	...	2	...	7
(b) Permissive	...	...	—	...	—	...	—

(ii) Deceased ... 1 ... 1

(iii) Removed to Institutions at instance of Public Assistance Committee ... 2 ... 2 ... 4

(iv) Removed to Mental Hospital ... 1 ... 1

Totals ... 7 ... 6 ... 13

Table I continued—Summary of the Year's Work.

(4) Removed to Institutions (not previously under supervision at home)	...	...	4	...	8	...	12
(5) Total number removed to Institutions or placed under Guardianship at the instance of the Local Authority (including 3 cases transferred from the care of the Public Assistance Committee)	...	...	9	...	13	...	22
(6) Institution cases that ceased to be chargeable to the Local Authority during 1932:—							
(i) Deceased	...	...	—	...	2	...	2
(ii) Escaped	...	...	1	...	—	...	1
(iii) On licence	...	...	4	...	1	...	5
(iv) Transferred to a State Institution	...	...	—	...	1	...	1
Totals	...	...	5	...	4	...	9
(7) Transferred from one Institution to another	...	...	17	...	11	...	28
(8) Visits paid by Visiting Officer	...	...	...	...	...	...	2,288

TABLE II.

SOURCES OF ASCERTAINMENT OF CASES EXAMINED FOR FIRST TIME.

Source of Ascertainment	Idiots	Imbeciles	Feeble-minded	Unclassified	Not Certifiable	Totals
Local Education Authority:—						
(a) Statutory notifications	1	7	12	...	...	20
(b) Others	...	...	...	...	5	5
Public Assistance Department	...	1	9	1	9	20
Probation Officers	...	...	1	...	1	2
Police	...	...	1	...	3	4
Parents, Guardians or Relatives	1	...	...	...	3	4
League of Social Service	...	...	...	...	1	1
Mental Hospital	...	...	3	...	...	3
An Institution for Girls	...	...	1	...	...	1
Officers of Public Health Department	...	...	...	...	1	1
Totals	2	8	27	1	23	61

TABLE III.

Position at 31st December, 1932.

			Males.		Females.		Total.
(1)	Obligatory Cases:—						
	(a) In Institutions ...	...	86	...	78	...	164*
	(b) Under Guardianship ...	...	3	...	4	...	7
	(c) On Licence from Institution ...	...	6	...	2	...	8
	(d) Absconded from Institution and not yet found ...	...	2	...	—	...	2
(2)	In "places of safety" ...	...	—	...	—	...	—
(3)	Cases in regard to whom the Local Authority contributes under permissive powers:—						
	(a) In Institutions ...	...	5	...	5	...	10
	(b) Under Guardianship ...	...	—	...	—	...	—
(4)	Cases removed by parents or guardians in regard to whom the Local Authority does not contribute:—						
	(a) In Institutions ...	...	2	...	—	...	2
	(b) Under Guardianship ...	...	—	...	—	...	—
	Totals	...	104	...	89	...	193
(5)	Cases in Institutions under Lunacy Orders ascertained to be mentally defective:—						
	(a) Ely Lodge ...	...	39	...	39	...	78
	(b) Mental Hospitals ...	...	4	...	5	...	9
	Totals	...	43	...	44	...	87
(6)	Cases at home — ascertained to be defective:—						
	(a) Under Statutory Supervision ...	...	118	...	94	...	212
	(b) Under Voluntary Supervision ...	...	39	...	57	...	96
	Totals	...	157	...	151	...	308
(7)	Attending Occupation Centre—included in (6):—						
	(a) Under Statutory Supervision ...	...	16	...	6	...	22
	(b) Under Voluntary Supervision ...	...	—	...	—	...	—
	Totals	...	16	...	6	...	22
(8)	Attending Training Centre:—						
	(a) Under Statutory Supervision—included in (6) ...	...	12	...	13	...	25
	(b) Under Voluntary Supervision—included in (6) ...	...	2	...	2	...	4
	(c) On Licence from Institution—included in (1) ...	...	1	...	—	...	1
	(d) Under Guardianship—included in (1) ...	...	1	...	1	...	2
	Totals	...	16	...	16	...	32

*Including 15 cases (7 males and 8 females) maintained by the Board of Control.

Table III continued—Position at 31st December, 1932.

(9) "Subject to be dealt with" but action not yet taken:—						Males.	Females.	Totals.
(a)	Notified by Education Authority ...	3	...	1	...	4		
(b)	Otherwise ascertained ...	—	...	—	...	—		
Totals ...						3	1	4
(10) Under consideration but not ascertained to be defective ...						4	1	5

TABLE IV.

CLASSIFICATION OF KNOWN CASES.

	In Institutions or under Guardianship (including cases on licence, etc.)			Under Supervision at Home		
	Males	Females	Totals	Males	Females	Totals
Idiots ...	9	8	17	13	7	20
Imbeciles ...	40	22	62	57	62	119
Moral Defectives ...	1	1	2	...	1	1
Feeble-minded ...	53	56	109	88	80	168
Post-encephalitic Deterioration ...	...	1	1	1	1	2
Unclassified or not examined ...	1	1	2	5	2	7
Totals ...	104	89	193	164	153	317

TABLE V.

AGES OF CASES IN INSTITUTIONS OR UNDER GUARDIANSHIP
(INCLUDING CASES ON LICENCE, ETC.)

Ages—Years	Idiots		Imbeciles		Moral Defectives		Feeble-minded		Post-encephalitic Deterioration		Unclassified		Totals
	M	F	M	F	M	F	M	F	M	F	M	F	
6	1	...	...	...	...	...	...	...	...	...	...	...	1
10	1	...	...	2	...	...	...	...	...	...	...	...	3
11	...	...	1	...	...	...	1	...	...	...	...	...	2
13	...	...	3	...	...	...	...	...	...	...	...	...	3
14	...	1	1	...	...	...	...	...	...	...	...	...	2
15	...	1	1	3	...	...	1	...	...	...	...	...	6
16	1	1	2	...	...	...	...	...	...	...	...	...	4
17	1	...	1	...	...	...	2	2	...	...	...	...	6
18	...	...	5	1	...	...	2	3	...	...	...	...	11
19	...	...	4	1	...	...	3	6	...	...	...	...	14
20—25	3	3	7	4	...	...	24	8	...	1	1	...	51
25—30	2	...	6	5	1	1	16	19	...	...	...	1	51
30—40	...	1	7	5	...	...	4	13	...	...	...	...	30
Over 40	...	1	2	1	...	...	...	5	...	...	...	...	9
Totals	9	8	40	22	1	1	53	56	...	1	1	1	193

TABLE VI.
AGES OF CASES UNDER SUPERVISION AT HOME.

Ages— Years	Idiots		Imbeciles		Moral Defectives		Feeble- minded		Post- encephalitic Deterioration		Unclassified or Not Examined		Totals
	M	F	M	F	M	F	M	F	M	F	M	F	
3	...	...	...	...	...	...	...	...	...	...	1	...	1
7	...	1	3	2	...	...	...	...	...	1	...	...	7
8	1	...	3	3	...	...	...	...	...	...	...	...	7
9	1	...	1	3	...	...	1	...	...	...	...	...	6
10	1	2	1	3	...	...	...	2	...	...	...	...	9
11	...	...	3	3	...	...	2	...	...	...	...	...	8
12	3	...	4	5	...	...	...	...	...	...	...	...	12
13	...	1	7	3	...	...	3	...	...	...	...	...	14
14	...	2	2	2	...	...	1	...	...	...	...	...	7
15	1	...	4	...	...	...	5	2	...	...	...	...	12
16	1	...	2	2	...	...	10	6	...	...	...	...	21
17	2	...	4	3	...	...	9	5	...	...	...	...	23
18	...	...	3	1	...	...	7	6	...	...	...	...	17
19	...	...	6	4	...	...	10	7	...	...	...	...	27
20—25	1	1	4	12	...	...	13	12	...	...	1	...	44
25—30	1	...	4	5	...	1	13	19	1	...	3	...	47
30—40	...	...	5	11	...	...	10	10	...	...	...	2	38
Over 40	1	...	1	...	...	...	4	11	...	...	...	...	17
Totals	13	7	57	62	...	1	88	80	1	1	5	2	317

TABLE VII.

CASES IN INSTITUTIONS OR UNDER GUARDIANSHIP.

(a) Obligatory Cases.

NAME OF INSTITUTION, Etc.	Idiot	Imbeciles	Moral Defectives	Feeble-minded	Post-encephalitic Deterioration	Unclassified	Totals
(a) Institution Cases:—							
Allerton Priory R.C. Special School, Nr. Liverpool	1	1
Besford Court Catholic Mental Welfare Home, Worcester	5	...	...	5
Brentry Certified Institution, Westbury-on-Trym	2	...	...	2
Cardiff Poor Law Institution, Ely, Cardiff	14	26	...	27	...	...	67
Carnarvon Poor Law Institution, Bodvan	2	...	...	...	...	2
Coed Du Hall Institution, Rhydymwyn, near Mold	1	...	...	1
Drymma Hall, Skewen, Nr. Neath	1	...	...	1
Etloe House, Leyton, Essex	3	...	...	3
Falmouth Poor Law Institution, Falmouth	1	...	...	...	...	1
Girls' Village Homes, Barkingside, Essex	1	...	...	1
Hensol Castle Certified Institution, Nr. Pontyclun, Glam.	4	...	6	...	...	10
Hillside Institution, Buntingford	1	...	2	...	...	3
Hortham Colony, Bristol	1	...	12	...	...	13
House of Help, Bath	2	...	...	2
Monkton Hall Home, Jarrow-on-Tyne	1	...	...	1
Mount Tabor Certified Institution, Basingstoke, Hants	4	...	...	4
Newtown and Llanidloes Poor Law Institution, Caersws	2	...	...	...	...	2
Pield Heath House, Hillingdon, Uxbridge	1	...	...	...	...	1
Princess Christian's Farm Colony, Hildenborough	1	...	...	1
Rampton State Institution, Retford	2	2	9	1	1	15
Rock Hall House, Combe Down, Bath	1	...	...	...	...	1
Royal Earlswood Institution, Redhill	1	...	...	1
Ruthin Poor Law Institution, Denbigh	1	...	...	1
St. Elizabeth's Home for Epileptics, Much Hadham, Herts	3	...	...	3
St. Joseph's Home, The Croft, Sudbury	1	...	...	1
St. Mary's Home, Painswick, Stroud, Glos.	2	...	...	2
St. Raphael's Colony for Epileptics, Barvin Park, Herts	1	...	...	1
St. Teresa's Home, Lewisham	3	...	...	3
Seafield House, Seaforth, Nr. Liverpool	3	...	...	3
Stoke Park Colony, Stapleton, Bristol	14	...	8	...	...	22
(b) Guardianship Cases:—							
Central Association for Mental Welfare, London	1	...	1	...	...	2
Under Guardianship of Parents	1	...	3	...	...	4
Approved Homes	1	...	...	1
Totals	14	57	2	105	1	2	181

(b) Permissive Cases.

NAME OF INSTITUTION, Etc.	Idiots	Imbeciles	Feeble-minded	Totals
Brentry Certified Institution, Westbury-on-Trym ...	...	1	...	1
Cardiff Poor Law Institution, Ely, Cardiff ...	2	1	1	4
Etloe House, Leyton, Essex ...	...	...	1	1
Falmouth Poor Law Institution, Falmouth ...	...	1	...	1
Hortham Colony, Bristol ...	...	...	1	1
Newtown and Llanidloes Poor Law Institution, Caersws ...	1	...	...	1
Royal Earlswood Institution, Redhill ...	...	2	...	2
Stoke Park Colony, Stapleton, Bristol ...	...	...	1	1
Totals ...	3	5	4	12

TABLE VIII.

CASES REQUIRING EARLY REMOVAL TO INSTITUTIONS OR REQUIRING ALTERNATIVE INSTITUTIONAL ACCOMMODATION AS AT 31st DECEMBER, 1932.

	Cases at Home				Cases unsuitably placed in Institutions		Total		
	Parents willing for removal		Parents unwilling for removal						Both Sexes
	M	F	M	F	M	F	M	F	
Idiots ...	3	1	10	7	6	6	19	14	33
Imbeciles ...	1	2	32	31	13	14	46	47	93
Feeble-minded ...	1	—	32	19	5	6	38	25	63
Post-encephalitic Deterioration ...	—	—	1	—	1	1	2	1	3
Totals ...	5	3	75	57	25	27	105	87	192

REPORT ON THE OCCUPATION AND TRAINING CENTRES BY MRS. A. DASCOMBE, SUPERVISOR.

The general instruction given at the Occupation and Training Centres has been supplemented by a more detailed scheme of training. The girls and boys have been graded according to mental ages and varying abilities, and a record has been kept of work attempted and accomplished by each one in attendance. This method has proved advantageous and the standard of work has been decidedly higher.

OCCUPATION CENTRE.

During 1932 the numbers increased to six girls and 17 boys altogether, one of whom was transferred to an institution. Five of the Occupation Centre boys attended the Training Centre during morning sessions. The new cases, being younger than those already attending, required different methods of training. Continual sense-training,

eurythmics and physical exercises awakened the necessary response, and children were soon able to apply themselves to work demanding more concentrative effort. Simple-graded handwork was accomplished successfully, and by evoking a competitive spirit the children became happy and useful in their new environment. The older boys have shown continued interest in rug-making, basket-making, leather-work, stool and tray making, and the making of more difficult articles have been attempted. More complicated patterns have been attempted in rug-making and baskets with more difficult bases have been successfully made by the higher grade boys.

Speech Training.—Miss Collins has held speech training classes for two hours per week, and the following is a report by her on the work attempted:—

"The individual work, which was found to be a distinct need, is now carried on for the benefit of certain children during the first session and the original group work in the second session. Poor articulation and lisping are the main difficulties. Lisping is common for various reasons, viz., (1) Imperfect perception of sound; (2) Lack of muscular memory or imagination in varying degrees; (3) Copying "lazy" speech—a common local example is substitution of 'f' for 'th'; (4) Varying degrees of real difficulty in control of oral muscles.

"An illustration is found in the case of a girl who persists in substituting 'd' for 's', which is obviously to be traced, first, to faulty perception and, secondly, to definite difficulty in co-ordination of the tongue movements. The explosion caused as the tongue tip leaves the alveolar ridge, followed by the voiced vowel, gives distorted 'd'. Further, she has very little control over the small movements of the tongue which is needed particularly in 's'.

"It seems that example and constant reminding and encouragement is the better way rather than by more direct measures. Games, stories, acting, etc., are used in conjunction with pictures to make the lessons more vivid and to foster imagination, accuracy and observation.

"Progress cannot be judged in the usual way, but we believe that there is improvement."

Thrift Club.—During the year a thrift club was started and by Christmas every child had some money to withdraw; many had saved as much as fifteen shillings and a pound.

Attendance.—All children attend regularly and punctually and are more self-controlled in their behaviour.

General Remarks.—There is a kindlier atmosphere and a more co-operative spirit among the children in their relationship with one another, and the majority are proving useful within their limited capacities. The Centre is growing and more suitable accommodation is very necessary.

TRAINING CENTRE—MALES.

During 1932, there were 19 trainees who attended regularly and punctually. Of these, two boys were transferred to institutions and another obtained work.

The formulation of a more definite scheme of work resulted in the division of the trainees into three classes:—(1) Those who through lack of concentration or physical disability were unable to complete any set work; these lads assisted others in cleaning up, glass-paperying, sizing, staining, polishing and painting; (2) This division were able to benefit by a preparatory course and the boys were able to saw wood, plane it, mark out shape and finish off. Such articles as soap boxes and salt boxes and pastry boards were made, and the boys soon gained dexterity in manipulative skill; (3) The boys in this division, having benefited by a preparatory course, were able to take a more advanced course, and the making of more difficult articles was attempted, e.g., tables, chests of drawers, piano stools and dinner wagons. Five of the boys have learnt gauging, grooving, fixing of mortise and tenon joint and assembling.

Metal Work.—The introduction of a blow lamp stimulated interest in sheet tin, brass and copper work, soldering, bending and shaping of soft metals. Such articles as fire-guards, ash trays, pokers and toasting forks were made by more advanced boys, and the lower group were able to beat out old tins to make useful household articles.

Boot Repairing.—Boot repairing has been most successful, and dozens of pairs of boots and shoes have been repaired. Three boys can cut out leather, sole and heel without supervision, and one boy is able to earn a little by repairing boots at home. But it must be emphasised that these lads are not receiving specialised training; it would be a great advantage if arrangements could be made for a competent boot repairer to instruct the boys.

Games.—Football has been enjoyed during the winter and instruction in swimming has been given during the summer months.

General Remarks.—The tone of the Centre has definitely improved and the boys conduct themselves better while at work and in going to and from the Centre. With more suitable accommodation, more ambitious work could be attempted. All the boys are eager to find employment, and the results have proved that even mental defectives can do some work if thoughtful preparation is made for it.

TRAINING CENTRE—FEMALES.

During 1932, the number of trainees increased to 16, who, with one exception, attended regularly and punctually. The formulation of a detailed programme of work resulted in more progressive training in needlework, cookery, laundry work and housewifery. The general tone of the Centre is healthy; the girls work well together and are doing useful work.

Cookery, etc.—Constant practice in making popular dishes, e.g., pastry, cakes, pies, puddings, etc., resulted in a definite improvement in remembering recipes and ingredients required, and enabled the girls to obtain better results with less supervision. Continued interest has been taken in bringing ingredients from home, and at Easter and Christmas, cakes were made and iced at the Centre. Some practice has been given in shopping, and the girls have been taught to buy methodically and economically.

Needlework.—Definite progress has been made in this subject and great improvement shown by the majority of the girls in machining seams when making their own garments. Several girls have reached the stage of putting in sleeves, which is difficult even for normal girls. A new feature in this subject has been the cutting out of block patterns from which other patterns can be drafted. The foundations have been laid for a more practical approach to this difficult subject. Interest has been well maintained, and the trainees not only make their own garments, but garments for their younger sisters.

Housewifery.—Two monitresses are appointed each week to take complete charge in cleaning up the Centre, but, as this work is familiar, constant supervision is necessary to prevent reversion to careless methods.

Laundrywork.—Articles are brought from home to be washed and ironed. Clothes are more thoroughly washed and correct methods remembered, but supervision is necessary to prevent carelessness in damping down.

Folk Dancing.—The trainees thoroughly enjoy this subject, which has greatly helped in eliminating the tenseness of attitude so characteristic of mental defectives.

Swimming.—During the summer months the girls are taken for instruction in swimming.



